WUNSKA

First Nations Youth Inquiry into Tobacco Use

Final Comprehensive Report to Health Canada

April 1997

SIFC
The First Nations Social Research Institute
Saskatchewan Indian Federated College

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SUMMARY

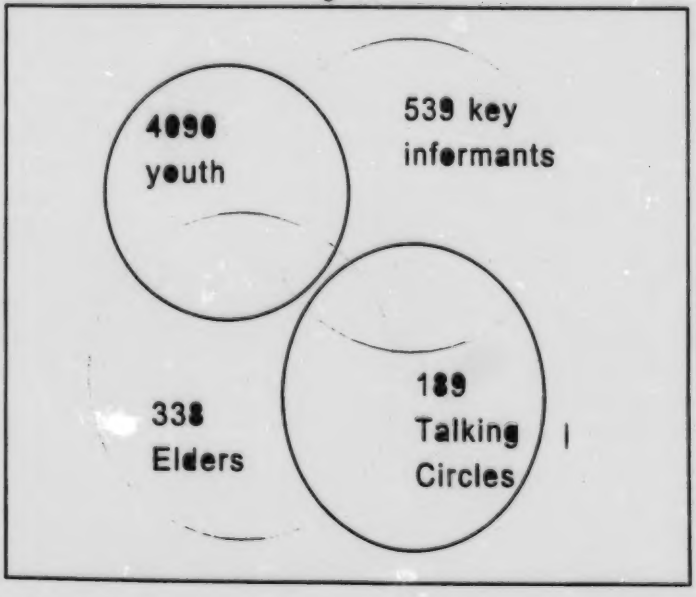
This Inquiry, the largest research undertaking among First Nations, documented tobacco abuse among Aboriginal youth in 96 on-Reserve communities across Canada. It blends modern epidemiological research tools with qualitative methods attuned to a First Nation "way of knowing", aimed at generating community-level discussions of issues related to youth smoking.

The Inquiry sought to create an empowering experience for First Nations youth and communities by building capacities for scientific research, grounded in First Nations knowledge, values and skills. In addition to the results the research process produced a *technology of First Nations research*, the first of it's kind in Canada. One important characteristic of the First Nations approach is that participating communities nominated Band members to receive basic training in how to research their own problems, to analyze and to interpret the results themselves. It also consciously utilized a wholistic perspective, based on First Nations traditional knowledge. Some **180** Community-based Researchers (CBRs) from Reserves across the country were exposed to data collection, data analysis and community action planning. Field work began in November 1995 and was completed in April 1996.

An individual youth questionnaire provided details on attitudes and smoking habits of **4,090** youth aged 10-14 years. This data was collected by means of individual interviews either at home or at school. This data was linked to semi-structured interviews with **539** key informants and **338** Elders, and to **189** Talking Circles (an indigenous discussion format with similarities to the nominal group technique). Data were sought on;

a) knowledge of effects of tobacco,
b) reasons for smoking,
c) access to cigarettes,
d) parental influence,
e) relation of tobacco abuse to traditional teachings/ activities and
f) proposed strategies to reduce prevalence of abuse
g) the coverage of public education programs.

Figure 1



Seven in every ten youth in the survey said they did not smoke.

One in ten (9%) was a daily smoker and a further two (21%) smoked occasionally. The proportion of smokers increases dramatically from the age of 10 to 14 years (from 12% to 51%) and, significantly, smoking is more common among females than males in almost all age groups: overall, a male youth is 40% more resilient to smoking than a female (95%CI 1.2-1.6).

There were quite different smoking rates reported in the various Aboriginal groups. The highest smoking rates were recorded among the Attikamec (56%), the Dakota (49%) and the Montagnais (48%); lowest rates were returned from the Micmac (21%) and the Blackfoot (16%). The average age of smoking uptake is 10 years. Almost 70% of youth smokers consume less than a package per week. The average smoker (including the majority who said they spent nothing) spent $3.60 per week on cigarettes. In some cases, for example, in northern remote areas, average expenditure was as high as $22 per person per week.

The Inquiry focussed on resilience to smoking. One in four youths associates smoking with peer pressure; information from elders, key informants, and the youth Talking Circles all confirm the importance of peer pressure in uptake of smoking and in quitting. Other key factors perceived by the youth are drinking and parental role models. The youth resilient to smoking is one who does not drink, whose friends do not smoke, who finds it easy to say no when offered a cigarette and whose parents disapprove of young people smoking (see Text-box, piii).

Being "cool" plays a big role in youth smoking. Around 40% of smokers said this was the reason they used tobacco. But "cool" also has another bearing on tobacco abuse, suggesting a possible area where specific action could be taken. Some 16% of non-smokers said they would not smoke because it was "uncool"; 35% of youth said they would not chew tobacco because it was either "uncool" or "gross". A systematic attempt to address tobacco abuse can build on this knowledge and perception of the youth.

Another key factor is parental and adult support for non-smoking. A commonly mentioned reason both for smoking and for not smoking was "parents influence". It is very positive to note the strength of parental influence on youth of this age, that it could actually result in youth not choosing to take up smoking or to say "no" to their peers. Youth discussing what can be done to help them quit smoking gave a clear indication of the importance of parental role models: the combination of "parents should forbid them" and "stop smoking in front of them" was the second most common response.

The uniqueness of the First Nations "community" is seen in the following finding. There was evidence that an enabling community environment was associated with lower smoking rates among male youth, that is, in communities where it is common practice to discourage youth to smoke in public, the male smoking rate was 40% lower than in other communities. Male youth

were also 45% more likely to resist smoking in communities where teachers did not smoke. Community caring is an important factor among First Nations, and First Nations youth today still have an identity with their community, as a result they are influenced by the caring that these communities could show by telling youth not to smoke.

It was possible to relate individual smoking patterns with habits in band offices and community facilities. A youth living near a "smoke-free" facility of this nature was considerably less likely to smoke (odds ratio 0.65, 95%CI 0.55-0.77) than one who lived near a smoking facility. Linking qualitative local factors with direct reports of individual youth, the role of community leaders, positive and negative, could thus be identified.

Concerns with racism and discrimination were found in most communities. When asked "Does your community experience racism or discrimination", the key informants said "yes" in 90% of the communities. However, less than one in three thought it affected youth smoking behaviour. Several indicators of interaction with non-Native communities were examined. None supported the notion that increased contact is associated with increased smoking; if anything, the reverse is true. For example, the average youth living closer than 20km was significantly *more resilient* to smoking than one living further away (odds ratio 1.55, 95%CI 1.3-1.8).

Logistic regression analysis permitted modeling of the complex web of personality, peer and family resilience factors. The final model had three individual factors and three "second order" or interacting factors. Not drinking alcohol, having few friends that smoke and being the sort of youth who does not feel left out all have effects on their own (7, 2 and 1.5 times more likely to resist smoking, respectively). Parents disapproval has a multiplicative interaction with finding it easy to say no: a youth with this ability whose parents disapprove is 2.3 times more resilient than other youth. There is a similar multiplicative interaction between parents disapproval and having few friends who smoke (odds ratio 1.8). Separate from the effect of each of these factors on its own, there is also a multiplicative interaction between youth who do not feel left out when others smoke and having few friend who smoke (odds ratio 1.6).

Resilience to smoking

- A youth ***who does not drink*** is seven times more resilient to smoking than a youth who drinks alcohol
- A youth with ***few friends who smoke*** is four times more resilient to smoking than a youth with many friends who smoke
- One who finds it ***easy to say no*** when offered a cigarette is three times more likely to resist smoking than one who finds it hard to say no
- A youth whose ***parents disapprove*** of young people smoking is twice as likely to resist smoking than one whose parents do approve.

> Why make tobacco if it kills people?
> A youth

According to this model of the interplay of different factors affecting resilience, a program successfully addressing the drinking factor might help some 34% of smokers resist smoking (95%CI 31-38%). A smoking reduction program successfully addressing peer pressure might help 25% of smokers resist smoking (95%CI 22%-28%). Initiatives addressing the issue of parental role modeling might help 12% of smokers resist smoking (95%CI 8-15%).

Aboriginal youth do not all accept their smoking habits as "the way things are"; four of every five youth smokers (81%) want to quit. One in ten saw this as a personal decision they would have to take, a further two in ten felt they would be helped by a support program, and a further two in ten said staying away from smokers and friends quitting would help.

In communities where there had been a "Smokeless Day" in the past year, there was greater resilience to smoking: a youth in one of these communities was only one half as likely to smoke as one in a community that had not had one of these "campaign days". The protective effect of these programs was particularly strong among male youth.

Aboriginal youth in this Inquiry showed an unexpected concern and level of knowledge about health. Concern for health was by far the biggest reason for not smoking, and prominent as a reason for not chewing tobacco. Although only a small minority claimed tobacco is harmless, knowledge of the negative health consequences supports resilience in a demonstrable way: a youth who said tobacco is harmful is 2.6 times more resilient to smoking than one who said it was not harmful.

The Inquiry confirms that information on the dangers of smoking does reach most Indigenous youth on Reserve. Upon deeper discussion, youth feel they need more specific information and would like to see information geared more to young people. When key informants were asked whether they thought existing or past smoking education programs had worked, only one in ten (11%) said "yes". Many youth said they wanted to know more about traditional use of tobacco and traditions in general. Elders expressed interest in assisting in this process, during their interviews.

CBRs were trained to run feedback circles on the results with Elders, 10-14 year-old youth, and other members of the community to involve the public in interpretation of those results and discussion of possible community actions. Once analyzed by the CBRs in a training workshop, the information was organized so it could be returned to the communities for interpretation. The feedback process by the CBRs involved three aspects: reporting back to community leaders, presenting the results to the community as a whole and action planning. Strategies were thus to

be tailored to the circumstances of each community.

The most common suggestion for Action Plans, which fits with the conclusions of the formal epidemiological analysis, is the need to develop programs to help youth cope with peer pressure. This suggestion came from all segments of the survey. All segments also suggested increased sport, recreational activities and facilities for youth.

For First Nations people, tobacco has traditionally been seen as a gift from the Creator to be used in ways that honor the gift. Abuse of tobacco may best be confronted by revitalizing this belief among Native youth and, in so doing, recovering for the community and culture the strength of its youth.

If a community decides it wants to develop an action plan based on the results of the Inquiry, the CBRs were trained to assist in:
1. identifying and forming a Planning Group,
2. developing a Community Action Plan, and
3. planning community involvement in the Action Plan.

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Acknowledgments

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I. Introduction

Objectives: The stated objectives of this project were;

- the development of a First Nations research paradigm that enables the general move of First Nations towards self-determination and self-government
- to determine the prevalence and risk factors of tobacco abuse among First Nations youth aged 10 to 14 years of age
- to improve the knowledge and understanding of reasons for tobacco use among First Nations youth
- to identify ways to lessen abuse of tobacco while acknowledging it's positive aspects in First Nations traditional culture
- to estimate the cost to the community of tobacco use and to assess the potential impact of community-based programs to reduce tobacco abuse
- to empower First Nations youth and communities by building capacities to undertake research that is 1) scientific and 2) based on First Nations knowledge, values, and skills.

This project successfully met each of these goals, and addressed the dual, and sometimes conflicting goal, of effective scientific research and an indigenous based, controlled capacity building research process. This enabled the development of meaningful knowledge at the local community context.

The project successfully developed a "First Nations Wholistic Research paradigm" and an accompanying *technology* of research, which produced culturally meaningful results. These meaningful processes enabled the community to acquire knowledge and devise means of addressing tobacco use among it's youth within it's own context. This technology can now be used, in the communities, to address any type of social, health, educational, justice, or spiritual issue that the community wishes to address. It can also be used effectively to research issues are policy or cost related, which the community wishes to address. The technology is characterized by;

1) a research approach,
2) research ethics,
3) research protocols, and
4) processes respectful of and grounded in the traditions of the local community or nation.

The community can effectively research issues within the scope of an individual, a family, a community, a nation, or a society. Action plans can be devised at any of these levels, and can be effective at meeting the needs that emerge.

The study of tobacco use among Native Peoples in Canada poses unique challenges given the *traditional* use of tobacco in the culture. But there is also recognition in Native communities about abuses of tobacco (smoking and chewing), resulting in negative health consequences. This gives some direction for addressing the abuse of tobacco within this study.

Factors associated with tobacco use

The dynamic interplay of many factors help to explain the phenomenon of youth tobacco use. Sex of the youth and their First Nations/Aboriginal affiliation are associated with tobacco uptake. Published statistics also indicate consistently an increase of smoking with age; it is also in older age groups that the intention to quit is the lowest.

Tobacco abuse among Indigenous youth in North America is estimated to begin between the ages of 10 and 13 years; uptake usually starts as an experiment. One model of the initiation stages of tobacco abuse suggests that "initiation and development of tobacco use among children and adolescents progresses in five stages: from forming attitudes and beliefs about tobacco, to trying, experimenting with, and regularly using tobacco, to being addicted. This process takes take about three years"[1].
Environmental factors might include access to tobacco products, advertising, parental and sibling use, peer pressure and type of community. There is evidence, for example, of differing substance abuse behaviour patterns between on and off-reservation youth; those living on reservation are more likely to use tobacco[2].

Behavioral factors could include academic achievement, problem behaviors, behavioral skills, and experimentation. Personal factors include the knowledge of consequences and various functional meanings which include "subjective expected utility", self-esteem / image, self-efficacy, personality factors and psychological well-being.

Considerable research has addressed adolescent smoking behaviour, sometimes with complex

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[1] Okwumabua J-O, Duryea EJ. Age of onset, periods of risk and patterns of progression in drug use among American Indian high school students. *International Journal of the Addictions* 1987; 22/12: 1269-1276.

[2] Beauvais, F. Comparison of drug use rates for reservation Indian, non-reservation Indian and Anglo youth. *American Indian and Alaska Native mental Health Research* 1992;5/1:13-31.

tools, such as multidimensional health locus of control scales[3] [4], many of which propose "culture-free" self-esteem scales[5], sense of coherence[6] and self-efficacy measurement scales[7]. However, the cultural and spiritual aspects of health have been largely ignored[8]; some argue that cultural values play a role in defining how an adolescent feels about him or herself[9].

Reducing the risk

The seriousness of recognized health implications makes tobacco abuse a matter of urgency; it should be addressed through measures to reduce uptake and consumption, and to increase cessation. The Canadian Government has initiated several programs addressing tobacco abuse in the country. However, the poor understanding of tobacco abuse among Indigenous groups has limited the effectiveness of these public health programs.

Very little reliable information exists on how to run these programs in Aboriginal communities. One reason for the paucity of data is the unsatisfactory nature of much of the research conducted among indigenous people. Referring to Aboriginal youth under 15 years of age, Health Canada

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[3] O'Looney BA, Barrett PT. A psychometric investigation of the Multidimensional Health Locus of Cotrol Questionnaire*. *British Journal of Clinical Psychology* 1983;22/3:217-218.

[4] Lamarine RJ. Self-esteem health locus of control and health attitudes among Native American children *Journal of School Health* 1987;57/9:371-374.

[5] Whatley JH. Effects of health locus of control and social network on adolescent risk taking. *Pediatric Nursing* 1991;17/2:145-148.

[6] Margalit M. Loneliness Among Children with Special Needs : Theory, Research, Coping and Intervention. Springer-Verlag, New York, 1994

[7] Stuart K, Borland R, McMurray N. Self-efficacy, health locus of control and smoking cessation. *Addictive Behaviors* 1994;19(1): 1-12.

[8] Colorado, P. Fire and Ice: Natives, Alcohol and Spirituality: A Northern Health Paradigm. *Arctic Medical Research* 1988; 47/Suppl1;598-603.

[9] Pekeles G, The Heath of Indian and Inuit Children in Canada in the 1980s and 1990s. *Canadian Family Physician* 1988;34:1569.

recently recognised that "coverage of these populations requires special approaches"[10].

The present project attempted to generate a more accurate picture of tobacco abuse and its associated factors among indigenous youth.

[10]Mills C, Stephens T, Wilkins K. Summary Report of the Workshop on Data for Monitoring Tobacco Use. *Health Reports* Statistics Canada 1994;6/3;383.

II. Methods

Sentinel community surveillance(SCS)

The methods of this Inquiry derive from a decade of experience in some 40 countries, much of it with indigenous groups. Known as "Sentinel Community Surveillance" (SCS), this approach permits community-based fact finding through a reiterative process, addressing one set of issues at a time[11]. SCS is a cross-design of qualitative and quantitative techniques that permits a holistic picture of -- and locally designed solutions to -- a particular problem. It is a cost-effective way to collect community data, presenting them in an appropriate form for planning at local, regional and national levels [12].

Central to SCS is interaction with the research partners -- the communities. The process requires that results get back to the communities. The product is therefore the aggregation of data from the epidemiological analysis distilled through interaction with communities. Feeding back information to the communities, dialogue for action is stimulated within households, in communities and between communities and local authorities [13]. The resulting mobilisation to resolve specific problems is also a basis for empowerment.

Logistics of SCS center on repeated measurement in the same sites, reducing sampling error and making impact estimation straightforward. Rooted in modern epidemiology and participatory

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[11] Andersson N, Martinez E, Cerrato F, Morales E and Ledogar RJ. The Use of Community-based Data in Health Planning in Mexico and Central America. *Health Policy and Planning* 1989;4(3): 197-206.

[12] Ledogar RJ & Andersson N. Impact Estimation Through Sentinel Community Surveillance: An affordable epidemiological approach. *Third World Planning Review* 1993;15/3:263-272.

[13] Andersson N. Public participation in decision-making. In *Governance, public participation, decentralisation and integrity*. ed. Petter Langseth and Kate Galt. Danish Ministry of Foreign Affairs and EDI World Bank. Copenhagen 1996.

research techniques, SCS has been applied in many contexts: health, education, land mines[14], economic sanctions[15], water and sanitation. The method has been used to measure impact, coverage and cost in the fields of environment[16], urban transport [17], agricultural extension [18], health services [19], judiciary and institutional restructuring. It has proved useful in generating community-designed strategies to combat corruption in the public services in several countries[20].

The Circle as methodology

"We have always used a circle; we work toward concensus. Everyone comes with things to say or do, and leaves with ideas or tools, to go back and work on their concensus. We are reactive to things that come at us, as we struggle to survive.

We convene to figure things out and decide what to do. Everyone has to be able to speak; some are more assertive others are more passive, but all need the opportunity to speak.

We are convening a process, we must honour the process and go from there. The Circle is a process of equality. In the Circle we are aiming towards meeting our objectives. That's how we always did things before the Indian Act and elections" (Elder Danny Musqua, September 1996)

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[14] Andersson N, da Sousa C, Paredes C. Social costs of land mines in four countries: Afghanistan, Bosnia, Cambodia and Mozambique. *British Medical Journal* 1995;311:718-21.

[15] CIETinternational. The social conditions for health in Serbia. CIETinternational: New York 1994.

[16] CIETinternational. Nicaragua: Impact of the National Environmental Programme. EDI/World Bank. December 1995.

[17] CIETinternational. Results-oriented management of Managua urban public transport. EDI/World Bank. December 1995.

[18] CIETinternational. Effectiveness and efficiency of the Ugandan agricultural extension services. Government of Uganda. Ministry of Civil Service/World Bank. January 1996.

[19] CIETinternational. Health care services in Uganda. Government of Uganda, Ministry of Civil Service / World Bank January. 1995.

[20] CIETinternational. Tanzania Service Delivery Survey: Corruption in the Police, Judiciary, Revenue and Lands Service. EDI/World Bank. July 1996.

One of the most meaningful and powerful ways of organizing knowledge among First Nations is the Circle Teaching. An important aspect of this is the understanding that people need to relate to each other while reflecting on a particular issue, considering in an open way whatever is said by others. The Circle Teaching embodies the four aspects of creation; the knowledge shared in the Circle comes not just from the logical mind but also from the physical, emotional and spiritual aspects of reality.

In researching knowledge about a particular issue in the Circle, it may be appropriate to deal with the *relationships* around the theme. For example, instead of responding directly to the subject, someone might relate an incident or story to express themselves. Interpretation of these expressions for the individual brings to light thoughts that have been triggered by the issue. These insights provide the qualitative information for the Inquiry.

It is natural for us to turn to the Circle to undertake our inquiry. It is natural for us to honour this tradition as we undertake the research among our communities. It is natural that we show the youth of this study, and the CBRs that we keep the tradition alive by modeling for them the value of the Circle.

In the use of the Circle in research we present a safe place to gather the wisdom and knowledge or respondents. We(researchers) are one with the respondents in the Circle, the Circle is a place where we can react together and develop our ways of *carrying on.* It is a distinctly different place from the "research" process that has historically been used in social science research, a place where the respondent is passive in the process by being a provider of ideas rather than shaping the researcher and the findings. The research traditions of the western researcher are an extension of the colonial process experienced by First Nations, the Circle is an experience of decolonization.

Historically research in First Nations has been based on processes and methods developed by those who often lack in-depth understanding of the culture, tradition and language of the people. It is only recently that alternative methods to carrying out research have been developed and even given consideration. Previously, very few studies provided the depth and breadth of understanding First Nations reality. The circle and its teachings provide one of the most meaningful and powerful ways of organizing knowledge among First Nations. As such, it provides a base for research which is solid and grounded in the beliefs, values and way of life of First Nations.

Critical to the use of the Circle is an understanding of the process of the Circle and the teachings. The Circle provides a holistic approach to knowledge gathering and organizing that knowledge. In this research it provided greater understanding of the lives of First Nations youth, the context which they live and a deeper understanding of how First Nations youth view themselves and their relationships within the family, community and broader society. While First Nations communities and Nations are not homogenous they do share a perspective of life which is holistic in nature.

Utilization of the Circle process both as a way for researchers to work and for gathering data provided a research methodology which was holistic in both its development and implementation. For example, the Circle process, in research terms a qualitative methodology, provided a fuller and richer understanding of the physical, mental, emotional and spiritual dimensions of tobacco usage among First Nations Youth. In this way data was collected from the four realms of being versus one or two. The teachings of the circle embodies the four aspects of Creation; the knowledge shared in the Circle comes not just from the logical mind but also from the physical, emotional and spiritual aspects of reality.

While one of the objectives of this research was to collect quantitative data on tobacco use among youth in First Nations communities across Canada the research was also designed to ensure that the participants had opportunities to vocalize their understanding of why First Nation youth use tobacco in a way that is familiar to them. Although it is important to collect data which is deemed quantitative, which is valuable, but it can only provide data from that particular perspective. There are obvious pitfalls with research that focuses entirely on this process especially when considering the social, emotional and spiritual dimensions of reality. The Circle process provided the means to consider a research process which was holistic.

The Circle itself allows for several things to happen; one being that everyone in the Circle is considered equal. No one person in a circle is considered more important than another. In terms of research and data collection the researcher, in this case the Community Based researcher, is part of the circle. Equalizing the relationship between the researcher and the participant is important for several reasons. If research is to be beneficial to the community then the community must be active participants in the process which includes having their voices heard and validated. The Circle, through the equality of the participants in the Circle, generates an atmosphere of trust and openness amongst the participants in a way that is reflective of the culture and traditions of the People. The circle process also provides a 360 degree perspective on the question or issue discussed. Participants may have differing opinions, the Circle process ensures everyone's voice is to be counted. Everyone's words are considered as valuable as the next person and are considered to provide a richer and fuller understanding of the dimensions and context of the problem or issue at hand. Even though someone may say something which seems at the time as being out of context, the Circle provides the teaching that understanding may come to participants in other ways and that everything that transpires in a Circle does so for a reason even if we, as beings, do not understand it at that point in time.

The Circle also allows for relationship building with participants. Each person sits in a manner that all others in the Circle can view them. The important component of the Circle is that there are no tables which could prove as a distraction to others who are expected to listen respectfully to what the person is saying. Close relationships can be established in the Circle. These aspects provide the basis for utilizing the Circle in a research setting. The circle became a powerful medium in which to gather information which dealt with youth feelings, perceptions and beliefs.

(See Appendices for questions used in the Circle)

The Circle was utilized during the development stages of the research, during the training sessions and during data collection with participants at the community level. From the time WUNSKA members gathered work has been done in a Circle. The members themselves come from many directions around the circle. Each meeting of the research members is held in a Circle. The developmental phase of this research followed this same format with WUNSKA members being guided by their respective teachings, teachings from elders and the spirit of the Circle. The instruments themselves were born out of the circle process and teachings. Therefore the entire project has its basis in First Nations way of knowing.

The timing of the research itself considered the four seasons and the activities and commitments of First Nations communities at different times of the year. For example the summer months in many First Nations communities are inappropriate for data collection and even training sessions because many communities are involved in traditional gatherings.

The training materials including data gathering instruments were developed out of the Circle process. Several gatherings of the WUNSKA research team culminated in the development of instruments, a process of doing research and a process for implementing training of community Based Researchers which was based within the First Nations paradigm.

Those who participate in the Circle whether they were, WUNSKA members during gatherings to discuss and work through aspects of the research, Community based researchers in training and in the community, or participants all follow similar shared beliefs of working in a Circle. Participants enter or exit the circle through a designated doorway. In the center are the sacred gifts and objects depending on the teachings and beliefs of the First Nations participating. Participants can take any seat in the circle, with the exception of the first two seats to the left of the doorway. The first seat is reserved for the circle leader and the second for the leaders helper. The circle leader ensures traditional practices of those participating are respected and honoured thus ensuring the Circle is conducted and completed in a respectful manner.

During the training sessions WUNSKA members worked in teams of two as did the Community Based Researchers during data collection in the communities. The teachings of the Circle were utilized as the basis of both training weeks. All work was done in the larger Circle or in smaller circles which often consisted of community groups. Data was collected in the same format as the training. The training actually provided the example or prototype for Circle implementation for CBRs. Each CBR then utilized the circle in a way they felt was appropriate for their community. A more detailed discussion of the training follows in the next section of this report.

While the questions were developed prior to the implementation stage of the research, the Circle provided the Community Based Researchers with the ability to deal with unstructured questions

as well. The unstructured component allowed the CBRs to explore issues unique to their respective community including, but not limited to, the *life way* in the community. The spiritual and religious beliefs, the traditions and cultures, the relationship with outside communities which may have an impact on the youth and others in the community. Therefore impacting on the usage of tobacco and tobacco products. It also provided an opportunity to continue the relationship building aspect with the CBR and the youth present in the Circle.

The structured questions provide a starting point for all Circles. The questions were structured in an open-ended format to encourage youth to reflect and discuss the particular area. The questions were asked and put out into Circle by the CBR. The CBRs facilitated the Circle process without labelling responses as right or wrong but rather recording each response respectful. Listening and recording was done in pairs. Each person participating was given unlimited time to speak while others listened. If the CBR felt that the responses needed clarification or expansion they would go around the Circle again requesting more information and explanation. Critical in terms of the circle process implementation was the fact that the teachings of the region guided the circle process. For example CBRs in the Ojibway territory were encouraged to draw upon their respective teachings of the Seven Grandfathers. In areas where the CBRs were not familiar with the traditional teachings the training sessions provided an opportunity for them to explore these teachings with other CBRs and in many cases with local Elders.

Ethical guidelines were also established early in the project to guide the research by the WUNSKA team. These were utilized as they were based on teachings of Elders who participated in the development and guided the research process at the national level. In some areas the Circle with the sacred medicines was utilized. The decision to utilize the medicines in the Circle process was left with the CBRs and the local WUNSKA member who had in-depth knowledge of the values and beliefs of those participating. Taking cues and moving with the community we understood that each community is at a different place in time, perspective and geography. Respecting for differences is and was paramount throughout the research process.

In communities where the Circle was not culturally appropriate another discussion group (nominal group) methodology was used. This was done in certain communities of all of the communities that participated in this study. Despite the differences in the various First Nation participants in a given region, the circle was opened and closed with a prayers

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The WUNSKA research team as well as the CBRs faced many dilemmas in utilizing the Circle as a research methodology. These include but are not limited to the following;

- the need to respect each Nation, community, family and individual beliefs and values regarding the extent to which they practice their traditional ways and
- the need to ensure continuity and consistency of the approach across the nation despite the many different First Nations cultural and linguistic groups;
- the need to include the whole community or at the very least a reasonable cross-section of

the whole community;

- the ethical issues surrounding the written documentation of the information transpiring in the Circle;
- the issue of interpretation of the data;
- the responsibility we have to cherish our traditional teachings;
- whether or not we are collecting enough data or too much,;
- the need to ensure we did not do "for" the community rather work "with" community;
- the conflicting nature between capacity building and good research as defined by others,

The Circle leader begins the discussions by offering information to all participants. As with other participants, the leader says what s/he feels important to tell others in the group. Talking proceeds around the Circle in a clock-wise direction(in some areas this direction may be counter clockwise) with the individual seated to the left the next to speak. Individuals do not have to speak, they may decline this or any other opportunity to speak throughout the Circle. The one speaking is the only one allowed to speak. Others may not interrupt the person speaking by asking questions or adding to what is being spoken about. Each must wait their turn, and each is able to speak for as long as s/he chooses.

In communities where the Talking Circle is not culturally appropriate, another discussion group methodology was used. As a component method in the cross-design methodology, the Circle provide a mechanism to sound out the existence of consensus on a number of issues, as well as to reflect on and to interact with opinions of their peers.

The sample

A proportional two-stage stratified random cluster sample identified prospective participating communities. The master sampling frame was derived from two sources of information: the *Indian and Northern Affairs Canada* (INAC) database used for preparing the annual *Indian Register Population by Sex and Residence*, updated in December 1994; and data from the *Health Canada Community Work Information System* (CWIS), updated in June 1995. Following the Terms of Reference from Health Canada, the sample excludes the North West Territories but includes the Inuit of the Yukon and Innu of the Atlantic region.

The First Nations population was reported to be 553,316 in 1993, with 305,247 living on

Reserve[21]. Demographic projections establish a medium growth rate scenario of 4% in 1995[22] with an average of 3.7 people per house-hold[23]. INAC 1993 data estimate the average size of a Band (which may or may not live in the same settlement on reservation land) to be 130 households.

This two-stage proportional stratified random cluster sampling procedure helps ensure a) the best possible reflection of the heterogeneity of First Nations communities, weighted by the size of each, and b) representativeness at national and regional levels. After thorough discussions on possible criteria, the following strata were selected: Region/Province, with a broad regional Medical Services Branch (MSB) representation across the country; remoteness (using the MSB definition) and size.

The master frame was stratified by province; each province was further divided according to its degree of remoteness following this definition:

Remote isolated: no scheduled flight, minimal telephone or radio, no road access;
Isolated: scheduled flights, good telephone access, no road access;
Semi-isolated: road access > 90km to a physician's services;
Non-isolated: road access <90km to physician's services.

Communities in each category of remoteness were further stratified within each province by community size. The categories of communities by population size were as follows:

Very small:	1 -225
Small:	226-700
Medium:	701-1200
Large:	1201 and larger

Table 1
Transparency Table: The population, the sample and weights

[21] Reports sent by Band Chiefs to Indian and Northern Affairs Canada. Read-only database, December 1993.

[22] Statistique Canada / Affaires indiennes et du Nord Canada. Nault F, Chen J. *Projections des ménages et des familles des Indiens inscrits de 1991 à 2015.* Ottawa, Ministre des Services Gouvernementaux, Mars 1993. pix.

[23] The concept of household is the one used by INAC and the United Nations. According to these definitions, one household can contain anywhere from one to several families living off of one household support (the person who pays the rent, utilities, taxes, etc.). See Statistique Canada / Affaires indiennes et du Nord Canada. Nault F, Chen J. op. cit., p. 3 & 30.

REGION	Total population	Population aged 10-14y	% pop aged 10-14y	ACTUAL SAMPLE	% of SAMPLE	Raising factor
ALBERTA	49333	5000	15.5	969	23.7	0.6
ATLANTIC	14467	1500	4.6	457	11.2	0.3
BC	50477	5000	15.5	447	10.9	1.3
MANITOBA	54366	5500	17	609	14.9	1
ONTARIO	64028	6500	20	343	8.4	2.2
QUEBEC	39129	4000	12.4	716	17.5	0.6
SASKATCHEWAN	47117	4800	14.9	549	13.4	1
TOTAL	318917	32300	100	4090*	100	7

*This group represents 12.7% of the registered on-Reserve population of this age

The proportion of the population in each stratum was estimated and applied to the sites; this identified the number of sites required in each category to respect the composition of the population. The sites (communities) were selected randomly in the final stage of stratification. The total resulting sample consisted of 100 communities from the seven regions, of which 96 were successfully contacted.

Results were calculated at regional and national levels. National results were weighted to reflect the population of the region.

Capacity building

The 180 CBRs that were trained represent a wide range of skills and experience: from young people with no previous work experience to very experienced and skilled community health representatives, social workers and band staff. For the inexperienced, the survey presented an opportunity to develop skills for employment as well as skills they could use to benefit their own community. For many it was, as one CBR put it, an experience of "finding our own voice" as members of the community. For the more experienced, it was an opportunity to develop new skills to use in their professions and in community programs.

Two one-week training sessions were held in each of the seven regions, co-facilitated by trainers from WUNSKA and CIET. The first training focused on project objectives, research protocols and ethics, questionnaire design, interviewing techniques and facilitating and recording skills.

After CBRs had completed their data collection, they returned for a second training week. During this

week, CBRs learned to do data entry in Epi-Info, do simple frequency analysis and analyse qualitative data using simple content analysis and indexing techniques. In addition, they learned to do *meso-analysis* linking quantitative and qualitative data, promoting a more complete, holistic understanding of results and their implications.

A critical moment arose for the project when in middle February 1996, after the data collection training was complete it became apparent that more responses were necessary in order to meet the target of 4000 responses. It was decided at this time to use available resources to recruit another 25 communities to the study, and that two additional full training sessions of Data Collection and Data Analysis, would take place, one in Vancouver and another in Toronto and completed in Ottawa, in order to meet the target. Recruitment for these communities was very easy, compared to the original group, as the study was now well known in all regions.

Implementation

Field work began in November 1995 and was completed in March 1996. The cross-sectional survey established a baseline against which changes in risk factors for tobacco abuse can be measured in 96 First Nations communities. Data collection and analysis training was carried out in Vancouver, Edmonton, Saskatoon, Winnipeg, Thunder Bay, Moncton, Halifax. An additional cohort of CBRs was trained in Vancouver, and Toronto and Ottawa.

The field work component to training was organized in order to expose the CBR to as complete an experience of the actual undertaking on research before s/he interacted with the community. In order to understand the social and cultural context of the community (qualitative information), the CBRs started by interviewing key informants and Elders. This was followed by the individual youth questionnaire, which provided quantitative information on behaviors and attitudes of the youth. Then the CBRs facilitated the Talking Circle (nominal group), which provided insight into the personal and peer pressure on tobacco use among youth. In a second training session, data from the household survey, key informants interviews and the Talking Circle were systematized and analyzed by the CBRs, ensuring that a representative from each community provided the initial meaning to the raw data. After preliminary analysis, data were taken back to the community by CBRs for further interpretation.

Beyond documenting individual tobacco use with standardized questions from other surveys, the project addressed resilience factors drawn from the literature and First Nations' traditions. Data were gathered on knowledge of effects of tobacco, proposed strategies to reduce prevalence of abuse, reasons for smoking, access to cigarettes, parental influence, relation of tobacco abuse to traditional

teachings/activities and the coverage of public education programs.

Instruments

Four interlinked instruments were used to collect data:

1. an individual questionnaire
2. a Talking Circle guide
3. a key informants' interview guide and
4. an Elders' interview guide.

The individual questionnaire attempted to determine the extent of tobacco abuse, the individual factors associated with it and ways to help youth not to use it inappropriately (Annex 2). The Talking Circles gave depth to the understanding of resilience factors for tobacco abuse and cast light on possible solutions (see Action Planning).

The key informants' interview provided information on the community circumstances that condition the individual responses, i.e., relationships with non-Native communities, community attitudes towards smoking and community programs may influence youth behaviour. The Elders' interview provided an insight into the cultural context of the community, as well as smoking trends among youth over the years, information on the factors associated with abuse of tobacco and ways to help youth reduce abuse.

The database of the individual questionnaire was linked to those of the semi-structured key informant interviews and Talking Circles. Qualitative data were thus "quantified", as characterizing the community -- an innovative process known as *meso-analysis* by which data from the individuals can be interpreted in the local context[24].

Logistics

[24] Andersson N. Mesoanalysis: the linking of quantitative and qualitative data. In *Four Essays on Evidence-based Planning*. EDI/ World Bank 1996.

Two CBRs were selected for training by each participating community. They had three to five weeks to do their field work, guided by a field work plan, after their training session on data collection. In small communities where there were 100 or fewer youth to interview, all households with youth 10-14 years old were surveyed. In large communities where there were more than 100 youth to interview, the CBRs selected representative quadrants where the data were collected. These quadrants were defined in consultation with key informants using criteria relevant to each community.
With signed consent from the parents, the CBRs interviewed the youth. Interviews were one-on-one (one CBR interviewing one youth). Usually this occurred in the home, in a separate room for privacy and confidentiality. Some CBRs were responsive to the youths' concerns for confidentiality by conducting interviews at school.

Each interviewer recorded responses to the household questions in an exercise book, the questionnaire pasted inside the front and back covers and the pages cut in half lengthwise to make the questionnaire visible. These "Bhopal Books", characteristic of the SCS methodology[25], allow data to be collected and stored safely under field conditions.

Interviews with key informants and Elders were conducted by both CBRs (one interviewing while the other recorded). Key informants and Elders were interviewed individually.

In the Circles, one CBR facilitated while the other recorded. Where possible, a male CBR facilitated the groups of boys, while a female facilitated the groups of girls. Where community composition allowed it, CBRs conducted four groups: girls 10-12 years, boys 10-12 years, girls 13-14 years and boys 13-14 years. Efforts were made to have groups composed of both smokers and non-smokers.

Box 1

Resilience factors taken into account in the analysis

- ***age, sex, First Nations affiliation***
- ***drinking, friends who smoke, friends who chew tobacco, knowledge of health effects of smoking, self-image regarding health***
- ***personality traits like ease in "saying no", not feeling left out, personal problems***
- ***parental approval, teacher smoking, smoking in Band facilities, parents who inform about the dangers, family prohibits smoking in home***
- ***past-times and hobbies, school attendance, church attendance, involvement in sport, speaking a Native language, involvement in traditional ceremonies, knowledge of traditional uses of tobacco***
- ***anti-smoking programs, sports and other activities available for youth in the community,***
- ***community size, remoteness, region, economic base of the community, proximity to non-native communities, interaction with non-Natives, perception of racism in the community***

[25] Andersson N, Kerr Muir M, Salmon A, et al. Bhopal disaster: eye followup and analytical chemistry. *The Lancet* 1985;i:761-2.

Data entry and resilience analysis

CBRs entered the responses from the individual youth questionnaire using the Epi-Info software package. They then completed qualitative analysis forms from their interview and Talking Circle notes. Those responses that were quantifiable were coded and entered into a data base for analysis.

For purposes of understanding tobacco abuse, youth who declared they consumed cigarettes every day were grouped with those who said they do so occasionally. The two groups are decidedly different from the point of view of health consequences. However, it can be argued, they constitute a different risk group from those young people who systematically decline to smoke. The analysis focused on youth who declined to smoke; in one sense, they are resilient to the penetrating pressures to smoke. Understanding what facilitates their resilience might serve as an effective guide for support programs. Thus, the analysis focuses on the factors that separate them from smokers. CBRs identified inter-relationships between each of the four sources of information. Quantitative analysis followed five steps:

1) Frequency counts were derived and weighted for key indicators;

2) 2x2 contingency tables of main contrasts were prepared and estimates of resilience / risk (Odds Ratio and Risk Difference);

3) Once the main contrasts were determined, a sequential analysis of risk factors was undertaken to identify confounders and effect modifiers, based on the Mantel- Haenszel procedure[26] [27].

4) The confounders and effect modifiers were taken into account in a simultaneous multi-factor stratified analysis to distinguish their effect on different strata; and

5) A step-down logistic regression model portrayed the relative importance of and interactions between the component factors.

Many factors listed in Box 1 are themselves possible confounders and modifiers in relation to others. Only those associations that were significant at the 5% level are reported in this text. Most other associations can be assumed to have been tested and yielded a lower level of

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[5] Mantel N, Haenszel W. Statistical aspects of the analysis of data from retrospective studies of disease. *J Natl Cancer Inst* 1959;22:719-748.

[7] Mantel N. Chi-square tests with one degree of freedom: extensions of the Mantel Haenszel procedure. *J Amer Stat Assoc* 1963;58:690-700.

confidence that they can be explained by chance alone. Contrasts are expressed as the odds ratio (OR) or risk difference (RD)[28], exact confidence intervals (CI) are those of Cornfield. Heterogeneity between strata was tested using the procedure of Woolf.

[28] Miettinen OS. Estimability and estimation in case-referent studies. *Am J Epidem* 1976;103:226-35.

III. The Process

The stated research process for this study was that a cross-sectional study would provide the baseline for a longitudinal follow-up in the same 96 communities, using the same research instruments and feedback processes. The approach involves a fusion of two methods, designed to address some of the shortfalls of research previously done in Native communities. These two methods are Sentinel Community Surveillance(CIET) and the Talking Circle(WUNSKA).

However, the longitudinal follow-up would not take place due to the costs associated with the first "take-up" of data.

Accepting the challenge: making sure we do it "our" way

The decision by WUNSKA to accept the challenge and responsibility of carrying out this study did not come about with ease or without very serious consideration of the consequences to ourselves and to the communities with which we would be involved. The complex task of deliberation and attention to consequences was the first demonstration of how we as First Nations people and professionals "live" our "teachings".

The youth smoking survey initially proposed to WUNSKA was not immediately embraced until some critical issues, concerns and strategies were addressed including the following among others;

- the need for a First Nations driven and controlled national research process under Elders guidance
- the opportunity to take advantage of national level research and to exercise many of the principles and visions of First Nations research
- to address some of the fears and concerns of such a major national research undertaking with respect to the diversity of First Nations across Canada,
- achieving concensus among WUNSKA members on aspects of the research and the research process
- development and implementation of a united methodology and process congruent to First Nations values, protocols and ways of doing business(see appendices: Protocols)

Once WUNSKA agreed to undertake the research; the affirmation to adhere to the spirit and intent of the research process and methodology was formalized by a traditional ceremony and the research process was underway.

Challenges of First Nations research

Research among First Nations has reported consistently lower survey participation rates than in the non-Native population of Canada. This presents a serious bias, since those who are excluded or who decline to participate usually do not share the same characteristics as participants.

The reduced participation could be due to at least two factors. First, the surveys are rarely conducted by Native people themselves. Second, they tend not to deal with matters in a way that is not respectful of First Nations' culture and values. It is thus probable the current sources of research information underestimate the prevalence of tobacco abuse.

In order to obtain more valid and meaningful information, Health Canada invited *WUNSKA* and CIETcanada to conduct community-based inquiry into tobacco use among First Nations youth. *WUNSKA* is a group of First Nations teachers of social work; Community Information and Epidemiological Technologies Canada (CIETcanada) is a non-profit, non-governmental organisation dedicated to community-based research. The objective was to blend the tools of modern epidemiology and international advances in qualitative and quantitative measurement and to attune these to an Aboriginal paradigm.

Given the difficulty of access to First Nation communities to conduct an Inquiry, issues of protocol were given extensive consideration, particularly with regard to entry and acceptance into the communities. WUNSKA was instrumental in building trust with communities and thus gain necessary entry to carry out the research. A guiding principle was that the community should remain in control of data gathered and the process by which it was gathered. Communities nominated their own researchers for training; the techniques used were open to the control by communities as possible, and data were returned to the communities for key research tasks of data analysis and interpretation.

Another challenge in research with Aboriginal people in Canada is the prominence of research into *what has gone wrong*, such as in areas of addictions and social ills. Thus research on tobacco use portrays one of the less positive sides of life on-Reserve. This research attempted to view it in its positive light -- what helps some First Nation youth *resist* smoking, when so many

around them smoke. The Inquiry drew on the new but growing body of knowledge on resilience[29] [30].

The Inquiry thus attempted a) to place an Aboriginal paradigm at the center of the research, b) to put a premium on the community's voice, and c) to give to the community knowledge and tools to make informed decisions about ways to improve itself.

Subject and research process

An early challenge was the subject of the Inquiry: tobacco. There is widespread agreement that First Nation communities face other more important problems: for example, suicide, alcoholism, family violence and sexual abuse. Tobacco abuse, although a serious public health problem, is simply not a pressing concern for the majority of Aboriginal people.

Many of the Community-based Researchers (CBRs) sent by communities for training were initially skeptical of a survey on a subject they regarded peripheral to the real problems facing Native youth. In addition, some communities hesitated or gave limited cooperation because of this same concern.

The project thus had to deal with the ethics and practicality of conducting research on a topic of secondary importance to the communities. This was balanced by the focus on the opportunities the research approach offered to Native people, ie capacity building, a broad scope of inquiry. Of p
rimary importance is that native CBRs were trained to research their own problems, to analyse and to interpret the results for themselves. The potential benefit of capacity building was held to be more important than the specific subject of the research. In addition, this research opened the potential for communities to define other priorities to be tackled in further studies.One benefit of the Inquiry was that many CBRs became more aware of the depth and nature of problems in their communities. Several said they were surprised at the extent of problems of youth in their community and, as a consequence of the project, they felt motivated to play a more active role in dealing with their own problems.

[29]Werner EE. The resilient child. Conference on the UN Convention on the Rights of the Child. University of Victoria. 1994.

[30]Mangham C, Reid G, McGrath P and Stewart M. Resiliency: relevance to Health Promotion. Discussion Paper, Dalhousie University, May 1994.

Data Gathering

A standard field work plan was developed to guide the CBRs in their work; they had three to five weeks to do their field work after their training session on data collection. The sequence of events for CBRs was as follows.

Set-up

1) CBRs contacted the community authorities to explain purpose of the research. They confirmed the size of the community, Treaty Area and Band/Nation denomination. They asked the community authorities to organize a community meeting to publicize the survey and to inform the inhabitants of the interviewing schedule and methods.

2) CBRs identified key informants and schedule appointments with them.

3) CBRs identified households that have youth aged 10 to 14 years old and the number in each household.

4) CBRs drew a map of the community, delimited geographical quadrants and the boundaries of the community. All households were drawn on the map in their respective quadrants. Those households with youth of the target age group are given a number.

   a) In small communities where there were 100 or fewer youth to interview, all households with youth in the quadrants are surveyed.

   b) In large communities where there were more than 100 youth to interview, the CBRs select "representative" quadrants where the data is collected. This was done by defining geographical quadrants in consulting with key informants with regards to their socio-economic situation or other characteristics deemed relevant to the community. These characterizations were documented in the Bhopal Booklet. In consultation with key informants, quadrants are chosen so as to ensure that the community is well represented through the panel of quadrants. As many quadrants were chosen as necessary to arrive at a minimum number of 100 youth interviewed.

5) Once the quadrants were been identified, CBRs split up the workload.

Administering individual questionnaires:

6) CBRs began the data collection work by handing out the parental Consent Form. Once these are returned, CBRs proceeded to having one-on-one interviews with the targeted students.

7) a) At each house, the CBR asked the parents/guardians to sign a Parental Consent Form allowing their child (or youth) to participate in the research. If consent is given, they can proceed to interview the youth.

b) many CBRs found it more effective to interview youth at school, CBRs worked with school authorities to permit the survey to be organized during class hours or immediately after.

c) CBRs noted which house the youth come from and ensured that all targeted youth from the household had the questionnaire administered to them. Any missing youth were tracked to the house and the questionnaire was administered to them.

Administering Key Informants' interview guides:

8) CBRs conducted Key Informant interviews together, with one acting as interviewer and the other as recorder. Although verbatim transcripts were not necessary, the use of quotes was used. Rough notes of verbal and non-verbal messages were taken during the interview process. Immediately after the interview was over, both CBRs took time to review their notes and write them up in a clean form and to begin their analysis.

Administering the Talking Circle discussion guide:

9) After CBRs conducted their individual youth survey and their interviews with Key Informants, they were more sensitized to the situation of tobacco use in the community. They were better positioned to organize and conduct the Circle Discussion Groups.

CBRs conducted, where feasible, four groups of 8-10 people aged 10 to 14:

- girls 10-12
- boys 10-12
- girls 13-14
- boys 13-14

The groups were made up of both smokers and non-smokers. Through their household interviews, CBRs identified a cross section of youth so as to ensure the group's rough representativeness of other youths in the community. CBRs split up the tasks of group facilitation and recording. Flip charts were used to facilitate the group process and the record keeping. Although word for word transcripts were not necessary, the use of quotes was used, especially during the Data Analysis sessions. Rough notes of verbal and non-verbal messages were taken

during the circle process. Immediately after the circle was over, both CBRs took time to review their notes and write them up in a clean form and to begin their analysis. This task was facilitated by having the last round of the Talking Circle discussion focus attention of the participants on conclusions and findings emerging from the circle process.

Data Capture

Since the quantitative household survey was done in the same sites where the qualitative techniques were used, combination of data is relatively a straightforward matter. As indicated above, answers to the individual questionnaires and the field interview notes were consigned to the Bhopal booklet which remain the property of the communities. These data were entered into computers by CBRs using programmed data entry screens written for EPI-Info, a public domain software loaded on laptop computers. Parts of the qualitative data also permitted the coding of answers. These codes were also entered into EPI-Info using a similar programmed data-entry screen.

As can be construed from the discussion on the variables and the description of the process to gather the information in the field, there is a close relationship between the instruments. They have been designed to explore, from different perspectives, various facets of the same reality. Because the instruments address different levels of analysis, the questions are not the same in each instrument. However, the questions in each instrument are designed to be mutually reinforcing.

First, the individual questionnaire and the talking circle guide are administered to the same people, except that the latter will not cover as many of them. Second, the key informants' interview guide is about the macro universe in which the 10- to 14-year-old youth evolve. Third, similar questions in the different instruments offer linkages between them and, therefore, between levels of analysis. The graph below highlights some of the substantive linkages between the three instruments.

Linkages among instruments

Indicator/Question	Individual Questionnaire	Key Informants'	Talking Circle
Effects of tobacco on the body	X		X
Solutions to reduce prevalence of tobacco use	X	X	X
Activities for youth	X	X	
Reasons for smoking	X	X	X
Access to cigarettes	X		
Parental influence on tobacco use	X	X	
Relation of tobacco use to traditional teachings and activities	X	X	X
Public Education programs	X	X	

As the pre-test was conducted, the instruments were modified to tighten even more their convergence and substantive linkages. As can be seen, the design of the instruments and their use in the same communities permits the juxtaposition of different data sets about a same unit of analysis. This allows for a process of putting personal information (micro level data) in the context of information coming from a group of peers and from privileged observers of the community (macro level data).

The Use of T he Knowledge - Community Feedback Process

The Royal Commission on Aboriginal Peoples -Integrated Research Plan, July 1993, states that; "*the results of community research will be distributed as widely as possible within participating communities, and reasonable efforts will be made to present results in nontechnical language and Aboriginal languages where appropriate.*" This was one of the main objectives of this project. The return of information gathered to the communities, so that they could use the information in ways that are relevant to them. The community should be the first to receive the results once the

final report is completed

Partnerships, relationships

The partnerships in the community feedback process are the CBR and their respective communities. The CBR built relationships within their community with elders, key people and program leaders and youth. Some agencies were involved in supporting the CBR work with respect to assistance in organization and technical support. Schools were sometimes used as a site for individual questionnaire and circle implementation. During the data collection phase of the project the CBRs were very visible in the community. It is natural then that the communities look to these people for the final report results and the community, within it's own capacity contributes resources and ideas to the process of sharing information. Researchers were asked to, not only collect information but communicate the results in the most effective way for their community. The CBR network with other community groups, agencies or institutions to help them with this work.

Informing the community

This process can draw communities closer together as they seek ways for social change. Leaders could use the community feedback to help secure funds to implement the findings, making public displays of research findings, or providing reports at community meetings.
Copies of the final report should be distributed to places around the community, formal and informal, where people can read or refer to it. Presenting the findings to the community could be an opportunity for a celebration. Different groups in the community could also become involved with presenting the material in creative ways. For example, they might invite elders to tell
stories to recall the paths that people have taken to lead them to the situation they are in presently, the youth may present a play or create some art work to illustrate some recommendations of the research. They could use this avenue to illustrate directions for the future, and a community gathering could discuss strategies to carry out the findings.

Part of the benefits that communities expect from participating in this study was to be told of the findings that pertain to their health. Findings could be applied in public health should be communicated to health authorities, schools, elders, youth etc. Findings should be reported through a variety of mediums. The youth may respond to radio, T.V., music, drama, art rather than pamphlets or other print media. Findings and results should be communicated by whatever suitable means are available.

Communication Strategies for feedback process

During the Data Analysis Training week some preliminary information was processed and prepared for interpretation. This information was used as the sample that would have to be communicated back to their communities. The CBR's then engaged in planning possible strategies and communication methods that would be specific to their own community.

Planning

The task of the CBR is to present the information and to help the community come to some interpretation of the information. During the training sessions CBRs had the opportunity to brainstorm a number of ways to share the information with the community. For example, the CBR could arrange a meeting, circles or gatherings to share the information from the research. It may be necessary to hold a number of gatherings to accommodate as many people as possible. Whatever strategy it is important to have as many people from the community as possible aware of the results of the study. The information could be presented to those present at the gatherings. CBR's seek comments and ask for interpretations from the community members present. Suggestions for what, if any, action the community wants to take is recorded by the CBR A brief report is written with these suggestions and work begins on establishing a group to carry out the suggestions put forth from the gatherings.

Action

An outline of the ways to proceed to use possible strategies for each suggestion is drawn up. For example: the community concern could be that a high percentage of youth between the ages of 11 and 14 are smoking; the resulting action will be to sponsor a song writing contest for this age group, the message being anti-smoking. The winner of the contest gets the song recorded and broadcast over the community radio station. The CBR would also link with other community groups to help with the implementation of the proposed strategies. Virtually any group within the community can become involved with different aspects of the action plan.

This process, although completed in the Data Analysis Training, has not been carried out in many communities. This is the key to success in participatory community-based research. To insure that this component of the process is carried out, a continued communication between WUNSKA and the CBR'S needs to be maintained. Perhaps a detailed follow-up procedure with each community would have enhanced the process. Nonetheless, the CBR's have the capacity to carry out the tasks necessary to share this information with everyone in their community in the way that is most appropriate.

V. The Formats and The Training Week

Format

Data Collection Training

The first training session focussed on data collection and was 6 days in length. CBR'S gathered at a regional training site and the groups varied in size depending on their region. The main objective of the first training session was to provide an opportunity for CBR's to learn how to collect data through the use of quantitative and qualitative means. A key component of the training was to provide with the CBRs with a foundation of understanding the integration of these methods.

The training approach included presentations and facilitation of circle discussion by WUNSKA and CIET, practice in data collection techniques and practical application in the field. All training began with the experiences of the CBR'S within each training site thus ensuring that the training was tailored to meet the needs of the CBRs within that group. This honours and respects the range of ability, knowledge and experience that each group has.

Day One

The first day was primarily set aside to provide an overview of the project as well as to begin the process of building relationships between the CBR'S, WUNSKA and CIET. Despite the fact that training sessions were grouped by geographical areas many of the CBR'S did not know one another. As well, some training sessions had representatives from a diverse group of Nations.

The day began with an opening circle which is a central aspect of this research. The process of the circle outlined earlier in the report was followed. The opening circles in all the data collection training sites were facilitated by two WUNSKA members. Once introductions were complete, the project itself was introduced as well as the outline of the training week. Group guidelines were established early in the first day. This was done within the circle process, by the CBR's, to define such parameters as start times, breaks, and behaviours expected by group members. Some of the guidelines common to each regional site included: starting on time, regular breaks, people respecting time lines, returning from breaks on time, respecting one another when speaking, etc.

In establishing their own behaviors the CBR's established ownership of the process and were directly involved in the decision making. Other components which were covered during the first day included an overview of the research process, the survey instruments and ethics including confidentiality in research.

Day Two

In the second day of training the focus was on the circle process itself. In this section considerable time was spent with the CBR's exploring their experiences participating or facilitating various circles, the group knowledge concerning the different types of circles, guidelines for circle discussions, and utilizing the circle in research. Another topic examined the process for recording information during the circles. CBRs were given opportunities to practice facilitating and recording small circle discussions. This gave the CBR's an opportunity to explore what would work best for them in, their own community, during the data collection. This experience was to ensure that CBRs were able to capture the essence, detail and texture of what the youth would say.

Day Three

The third day focused on the Key Informant and Elders interviews. Various exercises were used to work with the CBR's to identify people in the community they could consider interviewing. Role plays were used providing each CBR with an opportunity to practice using the interview questions and interviewing techniques. As well each group of CBR's established some protocols which were specific to their community concerning the most appropriate ways to approach and contact key informants and elders, and appropriate ways to record information from this source. For example in some communities it was appropriate to approach an elder with a gift of tobacco and in other communities a gift was given after the interview or discussion had taken place. Some Elders agreed to the use of an audio cassette to record their contribution.

Day Four

The Individual Youth Questionnaire was discussed in depth and was led by CIET in many of the training sessions. Fundamentals of the design of the questionnaire were covered such as placement of questions on the questionnaire and specific wording. Appropriate protocols were reviewed with respect to the needs of the youth. One of their identified needs was to have privacy when answering the questionnaire; they stated that they would be able to answer questions more freely without adults listening. Role plays, in teams of two, provided the CBR's with the opportunity to experience administering the questionnaire.

The latter part of this day was focused on making the survey books (Bhopal Books) that would be used in their respective communities.

Day Five

Where possible, field testing of the instruments in a nearby First Nations community was carried out. This provided the CBR's with direct experience in administrating the instruments as well developing solutions for problems they may have encountered during this process. Opportunities to learn from each other through sharing of these experiences were provided in a circle discussion.

Day Six

Development of community implementation plan, logistics, and loose ends. This session focused particular attention on how to organize oneself to carry out the research. For example CBR's developed plans as to how they would inform the community about the research, organize the space required for the circle, and when, how and where the individual youth questionnaires would be carried out. Each community team designed a calendar of events listing achievable goals and pertinent details necessary to carry out the research.

The training week ended with a closing circle.

Data Analysis Training(DAT)

Five days were allotted for this part of the process. Two WUNSKA and CIET trainers were assigned to facilitate each region. This was necessary as this training involved more hands on skill building with the computer training. Lap-top computers loaded with the CDC stats program were transported to each training site. Each CBR's was trained and had direct access to the computers to enter their information.

The training plan included:

- Possible outcomes/objectives
- To begin the process of data entry using the Centre for Disease Control Statistics Program

- To participate in the preliminary analysis of all the information collected from their region

- To prepare the CBR's to work with their communities to interpret the results of the information that was collected from the Youth, Key informants, Elders and Circles the prepare the CBR'S to assist the community members to develop an action plan.

Day One

Opening Circle is a key component to this training. The CBR'S had experienced many new things and were excited to share this. It was important to reinforce that they were not working in isolation but were part of the larger circle of CBR's working across Canada. The opening circle honours each persons participation and provides a forum to reflect on their roles and what they have learned. This Circle varied in length depending on the size of the group.

The opening Circle provided both the trainers and the CBR'S with an overview of the whole experience. This set the stage for the beginning to look at the information and make some sense of it. We had extensive discussion about response rates, community dynamics and selection biases.

Day Two

The CBR'S, having spent countless hours collecting information returned to this training with a vision of their community. We began this day by putting that vision into a framework from which to work. The day was spent with organizing their information to get a clearer picture. Practical examples of quantitative and qualitative research were examined. CBR's began organizing the information from the Elders, Key Informants and Circles. Each community team of CBR's began to categorize the responses from each of the three qualitative sources. Written summaries were made of the non-quantifiable responses and this resulted in a presentation back to the large group.

Day Three: Learning about computer data entry...

Some of the CBR's had little or no experience and some had a great deal of experience with this technology. This particular workshop was conducted so as to meet everyones' needs and abilities. The WUNSKA trainers found that these learning experiences proved to

be most useful in that the skills learned were transferrable to other areas of life for the CBR's.

Qualitative and quantative data....

The afternoon began with the entry of the information of the Youth Questionnaire information. CBR's worked in teams of two, taking turns entering the information. This process was initially begun by the CBR's and completed by an independent member of the team. We found that the investment of time was better spent on the analysis than entering information. Each CBR's was given ample opportunity to become familiar with the computer, the program and how to enter the data.

Day Four

Meso-analysis

Meso-analysis is the term used to describe the interrelations among the Circles, Elders, Key Informants and Youth Questionnaires. In looking at these connections the CBR's were able to identify significant influences on youth behaviour in relation to smoking. They were also able to identify that Elders were mirroring what the youth were saying and the Key Informants were reflecting what the Elders were saying. This was also added to the information that was presented to the large group.

Presentations...

Each community group worked as a team synthesizing all the information and preliminary analysis interpretation and presented this summary to the rest of their fellow researchers. This was a very powerful experience in that the CBR's were given the opportunity to practice their presentation in preparation for their future community work. They were also getting a big picture of what the attitudes and ideas are across Canada.

Day Five: Communication strategy: feedback and action plan

CBR's worked in pairs to determine:
a) what to communicate
b) to whom it should be communicated
c) how to communicate it, in what form

d) at what kind of event

Circle discussions were held and list of ideas were drawn up. Community groups then, spent time exploring ways that would be most appropriate and effective in their communities.

A "Community Story" was constructed by putting all of this information into the four inter-linking circles to show a) the commonalities and differences among the various sources of information and b) the central messages that emerged.

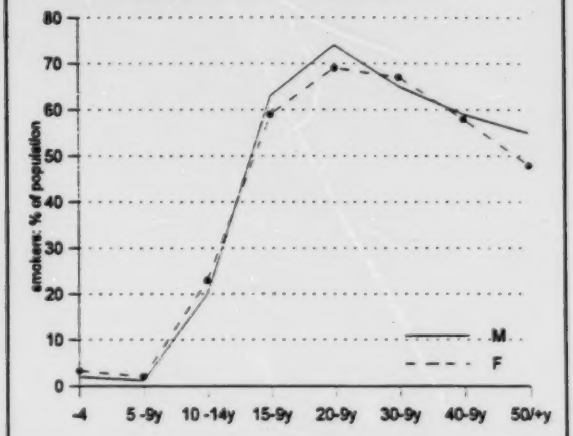
CBRs developed strategies for feedback of results to the community, to involve members in interpretation and implications of those results. They also developed ideas for possible community action plans. They then prepared and presented to the regional group of CBRs their "Story", communication strategy and action plan. For many, it was the first time they had ever made a presentation to a group. A "Community Story" poster, showing the four intersecting circles, with the key findings in each circle, was used by the CBRs to present their findings to their communities.

VI. The Quantitative Analysis: Comprehensive Technical Report

The study population

A total of 4,090 youth between the age of 10 and 14 responded to the youth questionnaire. There were 189 Talking Circles, composed of six to 10 youth from this age group. A total of 539 key informants and 338 elders were interviewed in 96 communities representing all regions of Canada except Northwest Territories. The nearest non-native community was 0-5 km away for 40 communities, 6-10 km for 12 communities, 11-20 km for 12 and over 20 km away for 26 communities. This indicates strong representation of remoter communities in the sample. Table 2 illustrates the sample interviewed in each province, each by a different local team. Thus, while data are roughly representative for each province, careful weighting was required to derive national estimates[31].

Figure 2
Tobacco use in households of youth aged 10-14 years in 96 Aboriginal communities
% of each age group that use tobacco



M	2	1.3	20	63	74	65	59	55
F	3.3	2.1	23	59	69	67	58	48

How many people smoke?

For each household where a youth was interviewed, the parent who provided signed consent to interview the youth also provided information in inhabitants and whether they use tobacco. While not representing the entire community, and underestimating the smoking among young people, Figure 2 demonstrates very high rates of tobacco use for both males and females in these households, especially after the age of 15 years.

[31]The official population estimates of communities covered in the survey permitted weighting of the sample: Alberta 16,939; Atlantic 6,642; BC 8,247; Manitoba 16,688; Ontario 7,768; Quebec 13,392; Saskatchewan 10,398. A total of 80,074 people were thus projected by official data to resident in the communities surveyed, which had an average community size of 834 (range 19-6,194).

Table 2
The Sample: Communities surveyed, youth interviewed and CBRs trained

	communities surveyed	10-14y interviewed	CBRs trained
Alberta	11	969	23
Atlantic	7	457	13
British Columbia	18	447	32
Manitoba	15	609	30
Ontario	16	343	30
Quebec	14	716	24
Saskatchewan	15	549	28
Total	96	4090	180

One out of three youth aged 10-14 years indicated s/he smoked. Nine percent of youth said they were daily smokers (range across regions: 7% to 17%, Figure 3) and a further 21% said they smoke occasionally (range

Table 3
Regional variation in youth smoking (% of youth interviewed)

	Alberta	Atlantic	BC	Manitoba	Ontario	Quebec	Sask	National
Smoke every day	9	10	7	7	12	17	8	9
Smoke occasionally	14	17	17	19	26	28	20	21
Want to quit smoking	74	68	81	83	88	77	81	81

across regions: 14% to 28%) (see Table 3 and Figure 3). Quebec has the highest rates of youth smoking. It also reported the highest prevalence of almost all risk factors associated with smoking: drinking, parents approving of young people smoking, many friends smoking and teacher smoking (see "Resilience to smoking").

The age and sex of smokers

The sample is well balanced among the five age categories; overall, 52% of the sample are female. The average age of uptake is 10 years. Smoking increases steadily with age (Table 4) and is considerably higher among female respondents(Table 5): the average female is 40% more likely to smoke than the average male (odds ratio 1.4, 95%CI 1.2-1.6).

Figure 3
Percent of youth aged 10-14 years who smoke

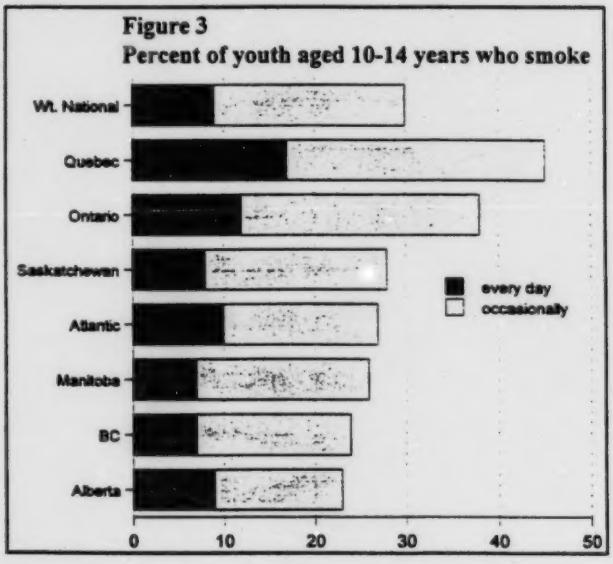


Table 5 illustrates that female youth smoke more, and more regularly, than male youth in all but the very youngest age groups.

Table 4
Age and Smoking

age	% of sample	% who smoke
10	21%	12.5%
11	20%	17%
12	21%	26%

There is a dramatic increase in"daily smoking" after the age of 12 years, whereas the increase in "occasional smoking" is more gradual. It seems, therefore, that entering the teenage years might have a particular meaning in relation to daily smoking; suggesting a potentially fruitful program with emphasis on 10 to 12 years-old.

Among 14 years-old surveyed, 56% of female youth say they smoke (Table 5). Considering that this could well underestimate the true smoking rates -- since some youth were concerned that the CBRs know their parents -- the true levels of youth smoking could be even higher than this.

Table 5
Smoking differences by age/sex group

Age	% who smoke Daily		% who smoke Occasionally	
	female	male	female	male
10	0.2%	1.8%	13%	10%
11	2.8%	1.6%	16%	14%
12	7.8%	4.1%	21%	17%
13	22%	10.5%	29%	26%
14	29%	22.7%	27%	26%

Figures 5 and 6 show the weekly cigarette consumption of youth who claimed to be smokers; confirming the heavier smoking habits of female respondents. Almost 70% of them (males and females) consume less than one package per week.

More males smoke between 1 and 11 cigarettes and more females smoke between 12 and 49 cigarettes.

First Nations affiliation

The First Nation affiliation and the rate of smokers in each Nation are shown in Table 6. The Attikamec, Dakota, Montagnais and Ojibway Nations report the higher rates of smoking: around one half of the youth aged 10-14 years from these Nations say they smoke.

Table 6
Nation of respondents (%) and percentage of smokers in each Nation Reasons for smoking

	% sample	% smokers	n=
Attikamec	1.8%	56%	71
Dakota	1.7%	49%	65
Montagnais	8%	48%	311
Innu	1%	43%	35
Ojibway	10%	40%	393
Algonquin	3.1%	40%	119
Maliseet	2.8%	36%	107
Cree	39%	28%	1504
Mohawk	1.1%	27%	41
Salishan	3.8%	24%	148
Sateaux	2.4%	27%	95
Other BC Nations	7.6%	24%	294
Micmac	5%	21%	191
Blackfoot 11%	16%	428	

Only First Nations representing >1% of the sample are included; the sample size is inadequate to offer estimates for smaller

When asked in the Talking Circles "Why do you think kids smoke", around one half of the responses related to peer pressures (Figure 7). When individual youth were asked in their questionnaire "Why do you think some people of your age start smoking cigarettes?", some 21% said they did not know (Table 7). There were slight differences in the reasons given by males and females. Female respondents were more likely to mention family influence or problems; males were more likely to say they did not know.

Table 7
Reasons why "some youth start smoking"
Gender stratified responses

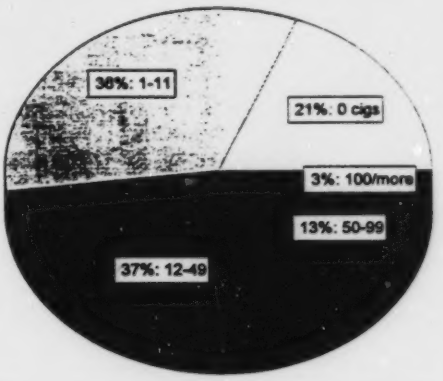
	Female responses		Male responses	
To be cool/cooler	41%		41%	
Peer pressure	20%		17%	
Parents/family influence	4.7%		3.5%	
Bored/fun/curious	4.2%		4.3%	
Addiction/craving		3.4%		3.5%
Personal choice	3.3%		3.5%	
Problem/depression/stress	2.2%		1.4%	
Do not know	19%		23%	

The responses youth gave for taking up smoking cigarettes were quite similar across different age groups; however, younger respondents were significantly less likely to attribute smoking to peer pressure ($p<0.001$) and were more likely to say they do not know why youth start smoking (Table 8). Among smokers asked "What makes you smoke more", the commonest responses had to do with peer pressure (Table 9).

Table 8
Reasons "some youth start smoking"
Age stratified responses to individual questionnaire

	9-12yrs	13-14 yrs
To be cool/older	42%	39%
Peer pressure	15%	25%
Parents/family influence	4%	4.3%
Bored/fun/curious	4.2%	4.3%
Addiction/cravings	3.2%	3.9%
Personal choice	3.8%	2.9%
Problem/depression/stress	1.7%	2.0%
Do not know	24%	16%

Figure 5
Number of cigarettes consumed last week



Quitting smoking

The majority of smokers (81%) wanted to quit (range across regions: 68% to 88%) (see Table 3). When asked what might help them to quit, 41% said they did not know. A further 10% declared that "nothing" could help. A substantial proportion felt they would be helped by one or other support program/device (psychological support, education, nicotine gum/patch, or simply encouragement). Some 3% (n34) felt they would be supported by a ban on tobacco sales.

Table 9
Reasons smokers smoke more
(% of 1215 smoking youth answering questionnaire)

Pee pressure	25%
Addiction/cravings	9%
Nothing	8%
Boredom	6%
Personal choice	6%
Do not know	27%

Figure 6: Why youth smoke % of Circles that reached consensus

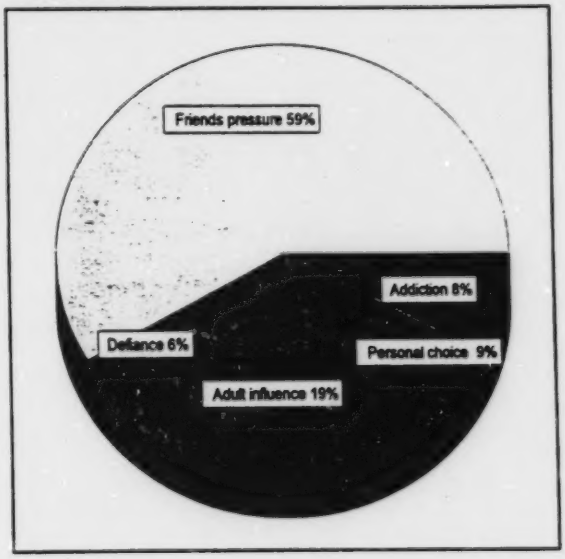


Table 10
Age stratified views of what would help youth quit smoking (% of 982 smokers who responded)

	9-12y	13-14y
Do not know/nothing	44%	45%
Support program	17%	18%
Friends /parents quitting	14%	9%
Stay away from smokers	10%	11%
Personal decision	10%	12%

More than 20% said there were things they could do themselves, including keeping away from smokers, cutting down, playing more sport or deciding to stop. There was no gender difference in the responses, and only a slight variation by age (Table 10): more of the older smokers referred to self-motivated action; more younger smokers referred to people around them (friends and parents) quitting.

Expenditure on cigarettes

Almost one half of the youth get their cigarettes from friends (46% of females and 45% of males), 12% from their parents, 5% from other adults and 7% from other family members. This could explain why one half of the youth interviewed say they do not spend anything on tobacco. Though the law forbids sales of tobacco products to minors, one in five (22%) report getting their supply from a cigarette seller. In this sample, there was no gender differentiation in cigarette sales to minors.

The average amount spent on tobacco in the week preceding the survey was eight dollars, among those who did spend money on tobacco. Including all smokers (57% of youth smokers said they did not spend anything), the average decreases to $3.60.

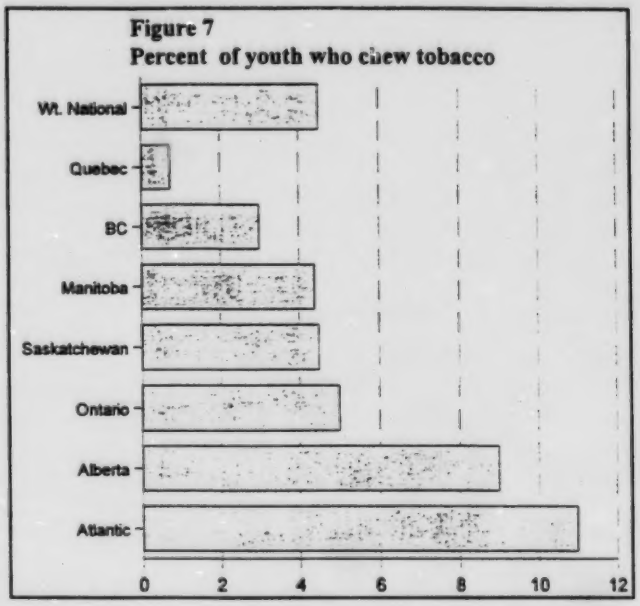
Expenditure is not homogeneous. Among those whose parents know of their smoking, approve of smoking or do not tell them it is bad for health, expenditure is significantly higher. Where parents do not tell them about the health effects, for example, youth spend an average of $4.30 per week compared with $3.40 where they do. There is no difference in expenditure between those who like to quit and those who would not.

Older youth, predictably, spend considerably more than younger smokers: from the age of 10-12 years, they spend an average of $2.00 per week; at the age of 13 it increases to $3.70, reaching $5.50 per week among 15 year olds. There is no detectable difference in spending patterns of male and female smokers. There are different spending patterns among youth of different Nations: Innu youth top the bill, spending no less than $22 per week; in distant second place, Micmac, Algonquin, Salishan and Sauteaux spend from $4.20-$5.20 per week. Spending among Mohawk smokers was lowest, at $1.20 per youth smoker per week.

Chewing tobacco

Not a primary focus of the survey, tobacco chewing was practiced by a small number in this age group. Overall, 4.5% of the youth interviewed chew tobacco (range across regions: 0.7% to 11%). The highest rate of chewing was found in the Atlantic Region and Alberta (Figure 7).

Figure 7
Percent of youth who chew tobacco



Male respondents were significantly more likely to chew than females: across all ages, a male was twice as likely to chew tobacco (odds ratio 2.2, $\chi^2 28$). The average age of uptake was, as with smoking, 10 years, with no detectable gender difference.

The main reasons given for deciding not to start chewing tobacco in the first place are that it is seen as "gross" or "ugly", it has negative health consequences, it has a bad taste, and personal choice (Table 11). One in five respondents answered that they did not know why other youth might chew tobacco.

There was a slight gender difference in reasons for not chewing ($p<0.01$), that could provide a hint for program purposes (Table 11). Female respondents were more likely to be put off by the aesthetics of tobacco chewing; males were more likely to remark on the health consequences. The data indicate that youth are keyed into aesthetics and could have a fair grasp of health consequences.

There was a weak suggestion that those who wanted to give up (69% of all chewers) started chewing at an older age (10.3 years compared with 9 years among those who did not want to give up). However, the small numbers in these subsets does not permit confident conclusions ($p=0.13$). Asked what might help them to quit chewing, male and female respondents gave slightly different answers (Table 12). Female respondents were more likely to say they did not know what would be needed to support quitting; male respondents were more likely to indicate family support or simply doing it themselves -- going "cold turkey".

Table 11
Reasons for NOT chewing tobacco
(% of respondents, stratified by sex)

	female	male
Gross, stupid, ugly	39%	33%
Do not know	20%	21%
Health risks	11%	14%
Did not know about it	11%	11%
Personal choice	10%	11%
Family pressure	1.1%	1.5%

Table 12
What would youth need to quit chewing tobacco
(% of chewers, stratified by sex)

	female	male
Do not know	52%	45%
Refuse to answer	27%	23%
Family support	3%	11%
"Cold turkey"	2%	11%
Stay with non-smokers	7%	3%
Use gum	2%	4%

Box 2

Smoking Resilience Factors

Factors		*odds 95% CI*
Not drinking alcohol	9.5	7.6-11.9
Attending school	5.9	3.4-10.4
Few friends smoke	5.5	4.7-6.5
Age<12 years	4	3.3-4.5
Parents disapproval	2.9	2.4-3.6
Find it easy to say no	2.7	2.3-3.1
See smoke as dangerous	2.7	1.9-3.8
No personal problems	2.5	2.1-3.0
Non-natives share facilities	2.4	1.9-3.1
Community "smokeless days"	2.1	1.1-3.3
Parents tell about dangers	1.9	1.5-2.4
Go to church	1.9	1.6-2.2
Teacher not smoking	1.6	1.3-1.9
<20 km from non-natives	1.5	1.3-1.8
Smoke-free local facilities	1.5	1.2-2.0
Involved in Sports	1.5	1.3-1.7
Being male	1.4	1.2-1.6
Where smokers scolded	1.4	1.1-1.9
Remember campaigns	1.3	1.1-1.5

Resilience to smoking

Risk and resilience

For purposes of understanding tobacco abuse, youth who said they smoked cigarettes every day were grouped together with those who said they do so occasionally. The two groups are decidedly different regarding health consequences. It can be argued, however, that they constitute a different risk group from those young people who systematically decline to smoke.

Reasons for not smoking

This Inquiry focuses on the youth who declined to smoke; they are resilient to the evidently very penetrating pressures to smoke and, in large measure, provide role models for their peers.

Understanding what facilitates their resilience might serve as an effective guide for support programs. Thus, the analysis centers on the factors that separate them from smokers.

Almost one half of those who say they do not smoke now have tried smoking at some time in the past; only 5% of current non-smokers are thinking of starting. With a view to characterizing and examining the program potential of this resilience, non-smokers were asked about their reasons for choosing not to smoke.

To tease out the difference between those who *acted* on this knowledge, and declined to smoke, each of the factors was tested in turn (Table 14). Box 2 lists the resilience factors of prominence in this Inquiry; the interpretation of some of these is spelt out in Box 3. These are "crude" associations, in the sense that they do not take into account interactions with other resilience factors. The associations with various resilience factors are also quite different -- with important program implications -- among certain sub-groups of youth.

Box 3

Resilience to smoking
(unstratified analysis)

A youth who does not drink alcohol is over nine times more resilient to smoking than one who drinks

A youth attending school is six times more resilient to smoking than one who does not attend

A youth with few friends who smoke is almost six times more resilient to smoking than one who reports that many of his friends do so

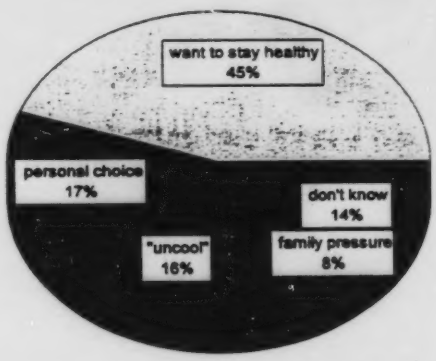
A youth whose parents disapprove of young people smoking is three times more resilient to smoking than one whose parents do approve

A youth who finds it easy to say 'no' when offered a cigarette is almost three times more resilient to smoking than one who finds it hard

A youth who believes smoking is harmful is 2.6 times more resilient than one who believes smoking is not harmful

Table 14

Figure 8
Reasons for NOT smoking
(% of 2906 non-smokers)



Regional variation in resilience factors
(% of youth interviewed that have each of the factors, based on individual questionnaire)

	Alberta	Atlantic	BC	Manitoba	Ontario	Quebec	Sask	National
Many friends who smoke	14	16	19	23	22	35	18	20.5
Feel left out	22	19	24	27	20	29	28	25
Find it hard to say no	33	22	37	34	41	32	41	37
Parents say smoking harms	92	90	94	86	90	88	92	91
Parents approve of smoking	14	9	9	15	8	31	12	13
Favourite teacher smokes	21	24	13	25	12	32	26	21
No particular problem in life	32	41	26	28	17	36	35	30
Do not feel healthy	11	15	13	15	18	30	16	16
Know smoking is harmful	97	95	97	97	98	92	98	97
Encourage others to smoke	2.4	2	1.4	2	3	3	2	2
Seen material on risks	72	71	49	67	71	63	65	64
Remember what was seen	71	71	62	56	74	58	65	64.5
Do not speak Native language	47	28	49	47	35	13	48	42
Attend traditional ceremonies	61	73	71	43	69	48	62	61
Know about trad ceremonies	44	59	20	34	60	24	45	39.5
Use tobacco in traditional way	45	50	31	43	55	31	44	42
Feel spiritual	66	66	53	66	57	55	60	59
Go to church	66	80	55	63	56	75	58	61

Drinking alcohol

More than one youth in every ten (12%) said s/he drinks alcohol (range across regions 9% to 18%). Quebec has the highest percentage of youth drinking (18% compared with 12% across other provinces).

There is a convincing association between youth drinking and smoking: a youth who does not drink alcohol is almost ten times more resilient to smoking than a youth who does drink. The result is not surprising. It was also mentioned by key informants and Elders: "smoking and drinking go hand in hand".

The value of having quantitative data on this is two-fold. First, it permits "exclusion" of the component of resilience associated with not drinking when attempting to quantify the relationship with other less obvious resilience factors. Second, as targeted support programs attempt to address the issue of youth smoking, the 12% of youth drinking can be used as a benchmark against which to measure progress against youth abuse of alcohol.

Taking account of other resilience factors through stratification, the association with drinking is not a simple one. The measured size of the effect between smoking and drinking is exaggerated, for example, by the fact older youth smoke more and also drink more. This was dealt with by considering the smoking-drinking link separately in different age groups (stratification).

In an attempt to disentangle the web of factors linked with smoking, it was possible to separate between drinking and a preference for "going out with non-smokers". Taking into account these two factors (age and "preferences for going out") simultaneously by stratification, the measured risk of smoking for youth who drink is reduced markedly, from 9.5 to 5.2, but it far from disappears. After excluding the effects of these two factors, the average youth who drinks is five times more likely to smoke than one who does not drink (OR5.2; 95%CI 4.1-6.6). This resilience factor is robust to all the many other explanations and cross-links that can be investigated in this Inquiry.

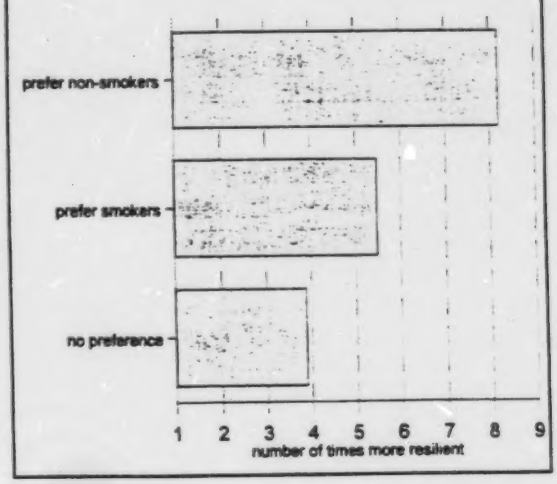
There are also important sub-groups where the resilience plays out quite differently (modifiers of effect). The association between drinking and smoking is stronger for those who prefer to go out with "non smokers"; of those who prefer to go out with "non smokers", a youth who drinks is eight times more likely to smoke than one who does not drink (see below). There is a complex interaction between "drinking" and "being with smokers" that alter the measured effect of drinking.

No preference:
OR3.88; $\chi^2$66.4

Prefer smokers:
OR5.45; $\chi^2$32.3

Prefer non-smokers:
OR8.23; $\chi^2$175,
χ^2heterogeneity 8.9

Figure 9
Resilience* of non-drinking youth
Interaction with preference for being with smokers



Personal problems

Several smokers mentioned that they had adopted the habit because of "stress" or "personal problems" (Table 8). Only one youth in three (30%) reported *no* personal problem in their lives (range across regions: 17% to 41%). This high incidence of reported personal problems is probably a good indicator of the level of confidence generated by the CBRs.

Among the majority of youth who do have a problem, family was the most frequently reported (25%), followed by school (15%) and friends (10%). In some regions, this question was found to be culturally sensitive and youth were reluctant to provide a detailed response. A youth who reports having no personal problems is 2.5 times more resilient to smoking than with one who reports having a personal problem.

The issue here is not simply the diagnosis of the association between being able to handle personal problems and resilience to smoking. If a serious in-road is to be made into youthful tobacco abuse, the ability to deal with personal problems should be addressed.

Being "cool"

Peer pressure provides the strongest and most consistent group of resilience factors for smoking in this Inquiry. When smokers and non-smokers were asked in the individual youth questionnaire "why do young people start smoking", the main reasons given by both were to be "cool" or older; many referred directly to friends and peers pressuring them (see Table 8). Sometimes the pressure is felt as more than social: a number of youth reported that "If you don't smoke, they beat you up".

There was some ambiguity in the use of the word "cool": some youth meant they think smoking *is* cool, while others meant they think others do it because they think they have to be cool (to fit in). "Cool" probably combines self-image and peer pressure. "Cool" might have additional meanings, such as "feel smarter", "more mature" or "to fit in".

***Interpretation of Resilience in Figures 9-13**
the horizontal axis marks the "number of times more resilient": thus, in the top bar of Figure 9, among youth who prefer company of non-smokers, one who does *not* drink is over eight times more resilient to smoking than one who does drink.

Three individual questions attempted to rate peer pressure: having many friends who smoke, feeling left out when others smoke and finding it hard to say no when offered a cigarette. Some 21% say many of their friends smoke (range 14% to 35%). 37% find it hard to say no when offered a cigarette (range 22% to 41%) and 25% feel left out when friends smoke (range 19% to 29%)(see Annex 1 and Table 14).

Friends smoking

None of the factors taken into account in this Inquiry (including sex, location, ethnicity, personality traits like difficulty to say no or feeling left out, parental approval, teacher smoking,

smoking in Band facilities) explained the effect of peer pressure as reflected by many friends who smoke. The association is also robust to age and drinking, factors that explain only a small part of the link between smoking and friends smoking.

Excluding the contribution of age and not drinking alcohol -- recognised as resilience factors in their own right -- the protective effect of friends not smoking is reduced only slightly: **a youth who has no/few friends who smoke is 4.6 times more resilient to smoking than one whose friends smoke (OR4.6; 95%CI 3.9-5.4).**

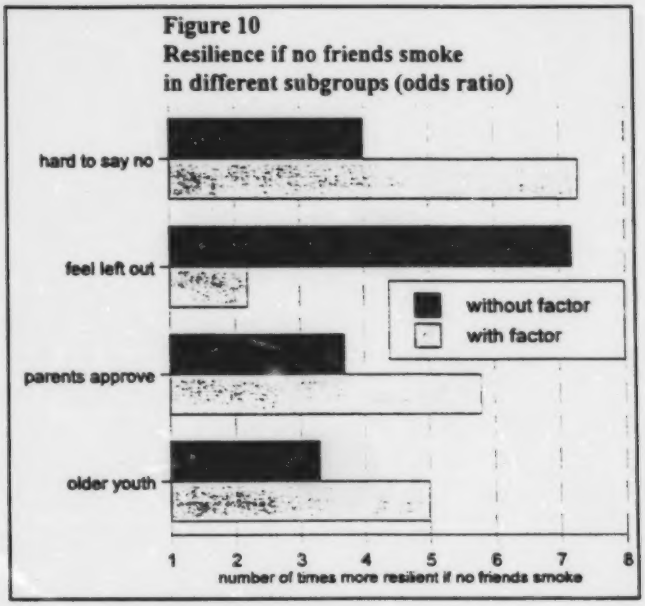
However, the association between friends smoking and resilience to smoking does vary among sub-groups:

- **An older youth (12-14 years) with non-smoking friends is *five times* more resilient than one with many friends who smoke.**
  Older OR5; χ^2 321
  Younger OR3.3; χ^2 58
  χ^2heterogeneity 4.15

- **The protective effect of friends not smoking is higher when parents approve of smoking.**
  Parents approve: OR5.8; χ^2 492
  Parents not approving: OR3.7; χ^2 32
  χ^2heterogeneity 3.3

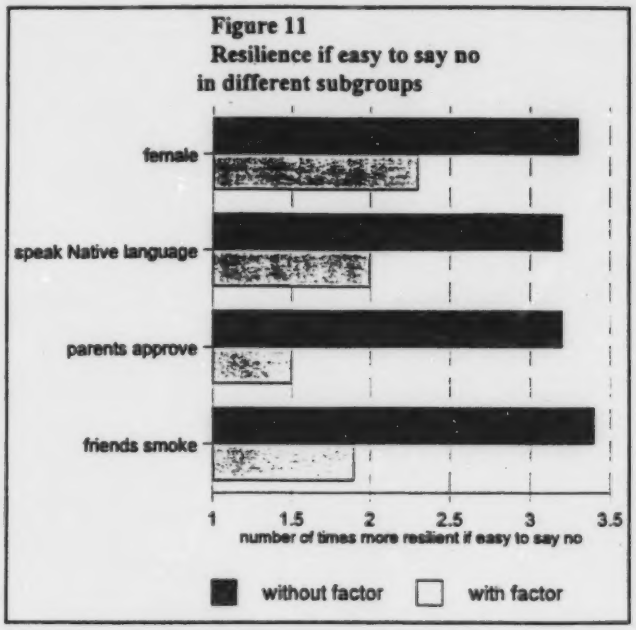
- **The protective effect of non-smoking friends was greater among those who say they do not feel left out. There is a complex interaction between "friends smoking" and "feeling left out", suggesting that not feeling left out may be the more important resilience factor for smoking.**
  Not feeling left out: OR7.2; $\chi^2$526
  Feeling left out: OR2.2; $\chi^2$27
  χ^2heterogeneity 39

Figure 10
Resilience if no friends smoke in different subgroups (odds ratio)



- **The protective effect of non-smoking friends was also greater among those who do not find it hard to say no when offered a cigarette. The same dynamic as in feeling left out could be operating here.**

  Not finding it hard: OR7.3; $\chi^2$418
  Finding it hard: OR4; $\chi^2$128
  χ^2heterogeneity 13.4



Finding it easy to say no

A youth who finds it easy "to say no" is considerably protected against smoking, being only about one third as likely to smoke. Probably referring to a sense of identity, the ability to say no could coincide with several other individual and peer factors. However, no other factors studied on this occasion explain completely the resilience to smoking among those who find it easy "to say no". The protection does differs significantly across sub-groups:

- **Gender stratification: female youth smoke more than males; female youth are less protected by an ability to say "no":**

  Males: OR3.3; χ^2 124
  Females: OR2.3; χ^2 71
  χ^2heterogeneity 6.6

- **The resilience associated with being able to say no is significantly lower for youth who do not speak their Native language.**

  Not speaking: OR3.2; $\chi^2$156
  Speaking: OR2; $\chi^2$41
  χ^2heterogeneity 8.2

- **Parents approval of young people smoking (see below) also interacts with ability to say no. The ability to say no is a stronger resilience factor for those with parents who disapprove of smoking:**

  Not approving: OR3.2; $\chi^2$194
  Approving: OR1.5; $\chi^2$4.5
  χ^2heterogeneity 19.7

- **The ability to say "no" seems to be more important a factor for those with few or no friends smoking (see below).**

Few/no friends smoke: OR3.4; $\chi^2$160
Many friends smoke: OR1.9; $\chi^2$24
χ^2het 13.4

Parental influence

No less than nine out of ten (91%) youth interviewed said their parents had told them about smoking dangers (range across sites: 86% to 94%). Only 13% of the youth said their parents approve of young people smoking (range: 8% to 31%).

> If your parents smoke, you will smoke. If you and your girlfriend smoke, your children will smoke, and suffer.
> An Elder

Parents' disapproval is a strong factor in resilience: a youth whose parents disapprove of young people smoking is three times more resilient than one whose parents approve. This association is only partly explained by factors that often accompany parents who approve of youth smoking: drinking (16%), friends smoking (15.6%) and age (10%). Taking into account these three factors simultaneously, the measured resilience is slightly reduced from 3 to 2.5. The protective effect of parental disapproval is notably stronger among some sub-groups:

- **Those who say they do not feel left out when peers smoke are more susceptible to the influence of parental approval. It seems probable some youth respond more to peers, others to parents:**

  Not feeling left out: OR3.8; $\chi^2$157
  Feeling left out: OR1.4; $\chi^2$3.4
  χ^2het 19

- **The supportive effect of parental disapproval is also less among those who do not find it hard on their own to say no when offered a cigarette:**

  Not finding it hard: OR4 $\chi^2$137
  Finding it hard: OR1.8 $\chi^2$14.6
  χ^2het 15.9

Teachers' influence

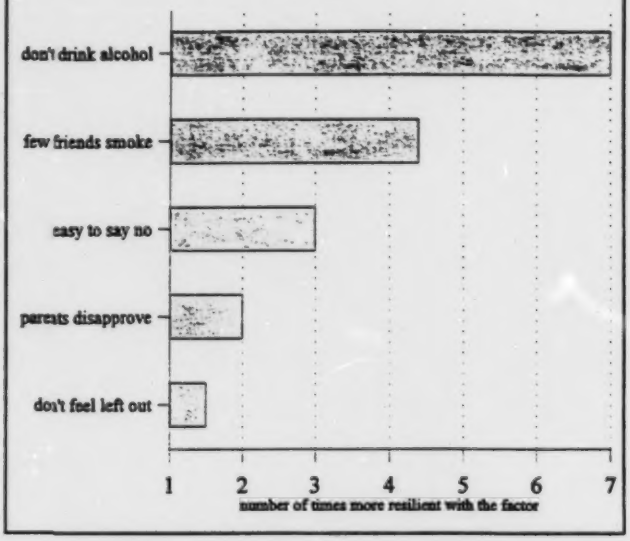
Asked whether teachers smoke in their community, a key informant said "yes" in 82% of the communities. Where key informants concurred that the teacher did not smoke, this was a resilience supportive factor, at least for male youth. A male youth in one of these communities -- where key informants reported that the teacher did not smoke -- was 45% more likely to resist smoking (95%CI 0.52-0.98).

A number of youth did not know whether their teacher smoked or did not have a favourite teacher. This limited interpretation of this question. Two in five youth who responded to the question indicated their favourite teacher does smoke (range: 12% to 32%). This has no detectable bearing on youth smoking patterns.

Communities supporting resilience

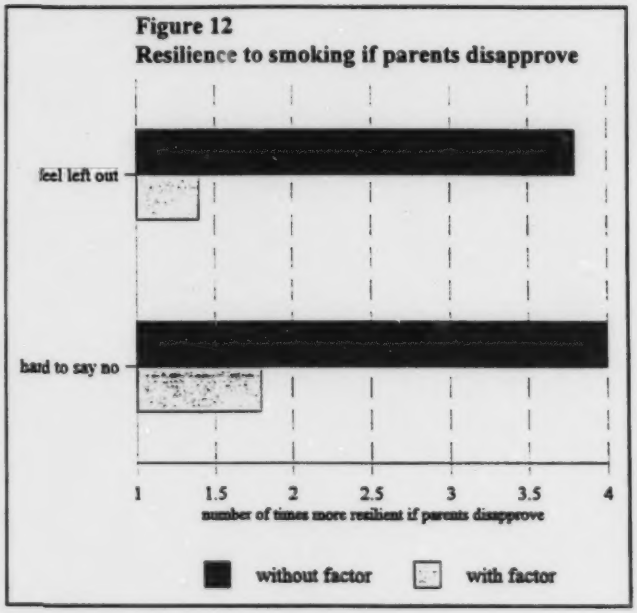
Key informants perceived smoking is very commonplace in their communities. When asked "Do people smoke in band offices and community facilities", 77% of all key informants said "yes". It was possible to relate smoking as reported in the youth questionnaire with the question "Do people smoke in band offices and community facilities" to see if healthy habits in these facilities are protective of the youth.

Figure 13
Modeling smoking resilience: five factors
Importance of each factor, taking into account the other four, allowing no interaction



A youth living near a "smoke-free" community facility was considerably more resilient to smoking (odds ratio 0.65 95%CI0.55-0.77, $\chi^2$25.3) than one who lived in the vicinity of a smoking facility. This result, not explained easily by chance or by any of the many factors examined in this Inquiry, indicates how community leaders do set an example for youth smoking behaviour. This may be of relevance as community-based strategies are developed to support youth resist the pressures to smoke.

Figure 12
Resilience to smoking if parents disapprove



When asked "Do people smoke in the work place", 80% of all key informants said "yes". In these

communities, there was no detectable tendency for youth to smoke more than in other communities.

Modeling resilience

A step down logistic multiple regression model was developed to help understand smoking resilience factors. While the psychology of individuals in a complex social environment cannot be summarised adequately in a mathematical model, the exercise is intended to help identify the relative importance of each factor in the presence of others that have a demonstrable effect.

In addition to disentangling the contribution of each factor to resilience, it also helps to identify multiplicative interactions between the factors.

The resilience factors included in the initial model were: not drinking, few friends smoking, easy to say no when offered a cigarette, parents disapproving and not feeling left out when others smoke.

The first model accounted for 91% of the variance. Considering the five factors simultaneously, it appears the main contributions to resilience come from not drinking and resisting peer pressure, followed by parental role modeling (see Figure 13). The personality type more likely to decline to smoke is probably a youth who does not drink alcohol (OR7), who has few/no friends who smoke (OR4.4), who finds it easy to say no when offered a cigarette (OR3) and whose parents disapprove of young people smoking (OR2).

A more illuminative model allowed for second order variables (multiplicative interaction between the different factors). This explained 95% of the variance between smokers and non-smokers: the interaction between parents approval and the youth finding it easy to say no effectively "wipes out" the effect of these two factors on their own. Their importance to resilience is when they occur simultaneously. There are also strong interactions between parents approval and friends smoking, and between saying no and friends smoking. The most parsimonious model is described in Table 15.

Table 15
Logistic regression model of smoking resilience: The contribution of factors and their interaction

	Odds ratio	95%CI
Do not drink alcohol	7.1	6.2-8.1
Few friends smoke	2.1	1.7-2.6
Does not feel left out	1.5	1.4-1.7
Parents approve x say no	2.3	2.0-2.6
Not feel left out x few friends smoke	1.8	1.6-2.2
Parents approve x few friends smoke	1.6	1.3-1.9

*NOTE: each effect is independent of the others

Interestingly, some of the protective effects offered by resilience factors on their own -- not drinking alcohol and the self confidence that the youth does not feel left out -- remain constant when allowing for interactions between these factors and others. Thus, even though "not feeling left out" has an important interaction with friends smoking, it also has a separate effect on its own.

Potential gains from different support interventions

Table 16 provides the estimate of risk difference, that is, how many youth might resist smoking if each factor was removed effectively: a) drinking, taking into account the other aspects of peer pressure, age, sex, etc; b) many friends smoking, taking into account the other factors; and c) parents approving, taking into account the other factors.

Table 16 indicates a program successfully removing the drinking factor could help some 34% of smokers to resist smoking. A program addressing the issue of peer pressure might help 22% to 28% of smokers resist smoking. A program addressing the issue of parental role modeling might help 12% of smokers. Each of these estimates "excludes" the effects of the other interventions.

Table 16
How many youth might resist smoking if drinking, peer pressure and parental approval of smoking were "removed": Risk Difference (RD)

RD	95% CI
Drink alcohol	0.34	0.31 -0.38
Many friends smoking	0.25	0.22 -0.28
Parents approve of smoking	0.12	0.08 -0.15

Table 17
"What happens when one quits smoking"
(% of 4069 respondents)

Improved health	16%
Feel better	10%
Bad craving	12%
Do not know	36%

The main reason given for a healthy self-image was "no smoking" (28%) and the main reason for an unhealthy self-image was smoking (37%). Asked "What happens when someone quits smoking", again health-related responses come first among those who had some idea. One in three said s/he did not know (see Table 17); this might be an ingredient for a communication strategy to support resilience to smoking.

Messages seen

Two out of three youth interviewed (64%) said they had seen something explaining risks of smoking tobacco (range across provinces: 49% to 72%). A smoker is 30% more likely to report having seen messages explaining risks of smoking tobacco than someone who does not smoke.

> Tobacco only kills old people and I never saw anyone die from it.
>
> from a Youth Talking Circle

One reason could be that smokers are more likely to be in contact with anti-smoking materials (primarily messages on cigarette packs). Two out of three (65%) of those who have seen messages explaining smoking risks remembered their content (range: 58% to 74%). The main reason for remembering the messages was "health risks" (see Table 18).

Of those who did not remember seeing any messages, almost one half offered no reasons for not remembering; 12% said they did not pay enough attention, while 11% said it was "too long ago".

Table 18
Why youth remember anti-smoking messages

(% of 1664 respondents)

Health risks	22%
On cigarette packs	17%
On TV/Video	11%
It is everywhere	8%

It seems the information on the general dangers of smoking is reaching most youth. But, they want to know more specific information and would like to see information geared to young people more often. The implications of these data are that a) youth do pick up on health messages, b) the messages are insufficiently strong to have an impact and c) there is probably merit in having the communication strategy designed by the youth themselves.

Activities that promote or detract from resilience

School attendance

Only 1.5% of the youth interviewed do not attend school (range: 0.3% to 3.8%). Also, some CBRs interviewed youth at school for confidentiality; the presence of the parents could have constituted an obstacle for some youth if the interview were conducted at home. Thus, some non-attenders were missed in these situations. The highest percentage of non-attendance (3.8%) is in British Columbia. According to CBRs from this region, this is mainly due to the isolation of some communities and the difficult geography of the region.

A youth who attends school is six times more resilient to smoking than one who does not attend school. Although a strong individual factor for non-attenders, this accounts for only a small proportion of youth smokers, since only a small percentage does not attend.

Some 77% of youth went to schools under the control of First Nations School Boards; there was exactly the same smoking rates in these as in other schools.

Recreational activities

The two favorite pastimes reported by youth are sports (37%) and TV/Video (12%). Responses to this question were recoded and divided into two categories to examine resilience promotion. Activities were divided into sedentary/passive (bingo, cards, TV or video) or those broadly considered to be "potentially enriching" (sport, artistic or cultural activities). There was no apparent difference in resilience based on this *a priori* classification. More females prefer passive pastimes than males: of 2,119 females who responded to this question, 73% prefer passive pastimes; of 1,964 males, 51% do so.

Reviewing the resilience to smoking associated with each pastime, both males and females are supported by sport, traditional dance, music, drawing and "being outdoors". Resilience is lower for both males and females who say their favorite pastime is visiting friends, listening to music, hanging out and, paradoxically, jogging. Resilience is significantly diminished for female respondents who reported their favorite pastime to be bingo, cards, hunting and sleeping. Resilience is *increased* for males who report play, being with family, school or traveling as their pastimes.

Key informants were also asked what activities were available for young people in their community; curiously, where more activities were reported, youth smoking was significantly more common.

Smoking education programs

Despite definition problems of key informants (KI) responses, it was possible to delineate communities in terms of whether or not there was a program. Some called posters a program. Some KIs may have been unaware if there was a program, particularly in the schools; this is the

sort of thing that isn't necessarily known by most people in the community.

Key informants in a 36% of communities reported *no* community education program initiated in the past year. Key informants in 41% of communities reported a Workshop or Seminar on smoking; 39% said there had been a media event/coverage; 14% said there had been a Smoke-Free Week; 7% reported Smoke-Free Facilities; and 6% said videos had been available. There was no evidence of lower smoking rates in communities with any of these activities reported, in contrast with those where no such activities were reported.

However, in communities where key informants said there had been a "Smokeless Day" in the past year, there was a dramatically higher level of resilience to smoking: a youth in one of these communities was only one half as likely to smoke as one in a community that had not had one of these "campaign days" (odds 0.54 95%CI 0.3-0.9). Among male respondents, the effect was particularly strong: the average male youth in these communities was about one third as likely to smoke (odds 0.38 95%CI 0.16-0.89).

Racism

Concerns with racism and discrimination were found in most communities. A number of key informants expressed the feeling that many youth have low self-esteem, and that this is partially due to the legacy of residential schools and their effect on the parents and the culture as a whole. When key informants were asked "Does your community experience racism/ discrimination", one or more of the key informants said "yes" in 90% of the communities; 71% of all key informants said "yes". This was quite different across the regions, being highest in the Atlantic region, where 96% reported racism; BC 70%, Ontario 68%, Saskatchewan 67%, Quebec 67%, Manitoba 64% and Alberta 60%.

Less than one in three thought it affected smoking behaviour: 31% said "yes", 37% "no" and 21% "do not know". Where all key informants in a community said there was no racism, there was if anything a slightly higher rate of youth smoking. However, the number of these communities is small and the difference could easily be explained by chance.

Interaction with non-Natives

The use by non-Natives of community facilities or activities could be an interesting indicator of the degree of interaction with, and influence by, non-Natives. The question underlying this concern is whether communities with no non-Native interaction are more resilient to the pressures that lead to smoking. It is also possible that communities with no interaction have more other problems. In four communities out of every five (79%), key informants reported regular interaction of this kind. The smoking of youths was compared between different grades of getting along with non-Natives (Table 18).

Another factor examined was the use of community facilities by non-Aboriginal people. Only 8% of key informants said their facilities were not used by non-Native people. Perhaps reflecting the

same phenomenon as distance, a youth in a community where facilities *are* used was 2.4 more resilient to smoking than a youth isolated from this contact (odds ratio 2.4 95%CI 1.86-3.1). There was no detectable gender difference in this risk.

Table 18
How do the communities get along with non-Natives
(% of youth smokers in each type)

	% youth living in each type	%female Smoker	% male Smoker
very well	13%	36%	29%
well	31%	31%	26%
medium	51%	36%	27%
mediocre	5.2%	28%	25%
bad	0%	0%	0%

Distance from the nearest non-Native community was also considered as a possible risk factor. There appeared to be a cut-off at around 20 kilometers; 34% of the youth lived >20km from the nearest non-Native community. On average, a youth living closer than 20km was significantly *more* resilient to smoking than one living further away (odds ratio 1.55, 95%CI 1.3-1.8).

There was a suggestion this affected female youth more than males, although this tendency was not significant at the 5% level. In summary, there is no evidence that isolation from the main-stream might support resilience.

Community services

There were a total of 169 CHRs, an average of two per community (range 0-9). In communities with no or only one CHR, youth were 36% more likely to smoke (95%CI 1.15-1.61). There was no gender gap. However, these communities coincided roughly with those more than 20km from the nearest non-Native community, and many of those where no non-Natives utilised facilities. Numbers were too sparse to permit disentangling of these converging effects.

There were 180 NAADP workers, approximately two per community (range 0-9). There was a suggestion that remoter communities with less than two NAADAP workers had higher youth smoking rates.

VI. Qualitative findings

In the Talking Circles, youths were asked, "What feelings do people have when they smoke?" Almost all of the responses could be categorised as either "negative feelings" or "positive feelings". More negative feelings were expressed than positive. The most common negative feelings expressed were "not at ease" and "unhealthy". The most common positive feelings were "relaxing" and "cool".

Reasons for not smoking

When youth were asked in the Talking Circles "Why do you think some kids don't smoke", most responses related to health risks (Table 13). These data indicate that Aboriginal youth are sensitive to the likely content of educational and support programs. A large proportion mentioned health as a reason for not smoking; either they wished to preserve their health or they had health problems they felt precluded smoking (see Figure 8).

Table 19
Main reasons for NOT smoking % of Talking Circles)
*based on weighted score for the various responses

Health risks	50%
Don't want to	18%
Parents influence	9%
Peer influence	6%
Other	11%
Do not know	6%

Female respondents were more likely to consider smoking "uncool", "gross" or "stupid"; males were fractionally more likely to refer to health concerns. A substantial proportion -- the second largest for male and females -- referred to the decision being one of personal choice (Figure 8).

Experiential data from the Talking Circles confirmed that parental influence played an important role in smoking behaviour. When asked in the Circles "Why do you think some kids smoke" (Figure 6), the second most commonly mentioned reason was "parents/ adult influence". When asked individually "Why do you think some kids *don't* smoke" (Table 13), the third most commonly mentioned reason was "parents influence". When asked in the Circles "If kids want to stop smoking, what can be done to help them", the combination of "parents should forbid them" and "stop smoking in front of them" was second most frequent response. And when asked "How do we help kids who don't want to start smoking", 21% of the responses related to parental or adult influence.

Key informants in each community were asked whether it was the custom to discourage youth smoking in public. In 15% of the 96 communities, no key informant said youth smoking was discouraged. In these "non-scolding" communities, the male youth smoking rate was 40% higher than in communities where one or more key informant said it was the usual practice to discourage youth from smoking in public (odds ratio 1.4 95%CI 1.06-1.9).

Counterbalancing this apparent positive effect of parental and adult support, an often expressed feeling was that "preaching and forbidding just makes youth want to do it more". Elders and key informants emphasised the need for positive role models (parents, teachers, community leaders), often saying "people should practise what they preach". They also spoke of the need for parents to take more responsibility for the behaviour of youth and show more discipline. smoking. These results were discussed by CBRs in the Analysis Training Workshops, and incorporated in their "Community Stories".

Table 16
How many youth might resist smoking if drinking, peer pressure and parental approval of smoking were"removed": Risk difference(RD)

	RD	95% CI
Drink alcohol	0.34	0.31 -0.38
Many friends smoking	0.25	0.22 - 0.28

Knowledge of tobacco

A number of questions in the individual youth questionnaire and in the Circles reveal that youth are highly aware of the health dangers associated with smoking. But this awareness presents a paradox. As expressed by an Elder: "There was less smoking by young people in the past and also less knowledge of bad effects. Now when everybody knows all the risks, many more smoke."

Harmful effects of smoking

Only 2% of youth interviewed would encourage younger people to smoke cigarettes (range: 1.4% to 3%). Nearly all (97%) believe smoking tobacco is harmful (range: 92% to 98%). Although only a small minority claimed tobacco is harmless, correct knowledge does support resilience: **a youth who said tobacco is harmful is 2.6 times more resilient to smoking than one who said it was not harmful.**

When asked how it harms, responses to the individual questionnaire are related to health: causes cancer (25%), respiratory problems (22%) or "kills" (9%). When youth were asked in the Talking Circles "What do you think tobacco does to your body", the most common responses (58%) related to health problems and disease. Almost all the other responses also had negative connotations.

Feeling healthy

One in every six youth (16%) consider themselves not so healthy (range: 11% to 30%). There was a strong association between resilience to smoking and a healthy self-image: 64% of those with an unhealthy self-image smoke, whereas only 22% of those who consider themselves healthy smoke. This association is confirmed by the responses given to additional questions on "Why do you consider yourself healthy or not healthy".

Need for more knowledge on tobacco

Participants in the Circles pointed out there were very few anti-smoking messages aimed specifically at youth. According to them, those are shown to have little impact on youth. A commonly heard comment in the Circles was that messages needed to be more graphic: some said they had to be "gross" and "show black lungs and stuff". Most Circle responses were related to wanting more information on tobacco and health; 15% didn't want to know anything more.

When asked what more they would like to know about tobacco, one out of three responded "nothing". Some 22% were interested in health consequences of smoking, 9% in "anything" and 8% in obtaining "information on tobacco". This includes information on health as well as on how tobacco is made (such as what chemicals are contained in the cigarettes). A high percentage offered no response (27%). Smokers and non-smokers did not request different information about tobacco.

Native language

Some 42% of youth interviewed said they do not speak their Native language at all (range across regions: 13% to 49%). The percentage varies significantly among regions, it is low in Quebec (13%) and relatively high in British Columbia (49%), Saskatchewan (48%), Alberta (47%) and Manitoba (47%).

One factor possibly contributing to this difference is the existence of a dominant Native language in Quebec, making it easier to include it in the school curriculum, compared with the diversity of languages in British Columbia. In Alberta, language programs have only recently been introduced in schools.

No evidence could be found in this study linking language with resiliency to smoking.

In the Circles, youth expressed they felt peer pressure to speak English and kids made fun of their accents. During the data analysis training, numerous CBRs expressed the opinion it is much more effective when the Native language is taught at home, because it is more closely related to the reality of life, versus in the schools, where the content is not as relevant.

Traditional activities

Three in five youth (61%) participate in traditional ceremonies (range: 43% to 73%). Two in five (40%) say they know about traditional use of tobacco (range: 20% to 59%); of those who know, 42% use it in a traditional way (range: 31% to 50%). There was no definable link between participating in traditional activities and resilience to smoking.

Several Elders said that, since commercialization of tobacco, it is used more but it is not used in traditional ways as often. Many pointed out the idea of traditional use is new to some communities.

Juxtaposing comments of youth and Elders on the role of Elders in helping youth with tobacco abuse problems, there is some room for improvement in communication. Elders often said "The youth don't listen to us or respect us"; youth often said "The Elders don't talk to us, don't have time for youth".

The youth don't listen to us or respect us.	Elder
The Elders don't talk to us, and don't have time for youth.	Youth

However, Elders often expressed the importance of teaching about traditional use of tobacco as opposed to abuse of tobacco. They also thought it would be good to have more Elders involved in youth programs, especially in traditional activities and ceremonies. Many youth said they wanted to know more about traditional use of tobacco and traditions in general. **Communication between Elders and youth could be an important bridge in future programs.**

Christian and Traditional

An additional tension in the project was the need to accommodate equally both Christian and Traditional worldviews and concerns. This was addressed in the data collection training by assuring CBRs all views would be considered equally and that they should include all elements of their community in the survey regardless of any divisions on the issue. Though a number of CBRs believed the content of the questionnaire(references to traditional spiritual ceremony, in particular) would cause difficulties in their Christian community, only one Christian community dropped out of the survey for this reason. This issue came up more often when the CBRs were from different "sides".

Despite the shared beliefs amongst many First Nations with regards to the teachings of the Circle there are also differences in traditional and cultural practices which have to be respected. In this particular research study considerable time was spent initially within the WUNSKA research team exploring issues related to the variety of spiritual and religious practices which exist across the

Nations. Several circle discussions revealed that while the methodology was sound it may not be appropriate in some of the First Nations. Of primary importance was to ensure that the methodology not intrusive nor unacceptable. Ultimately the decision was left to the CBRs attending the training sessions since the CBRs were chosen by their community or nation and were knowledgeable about their respective communities. During the training sessions CBRs were given opportunities to discuss the use of the circle in their respective communitiesand ways to deal with these issues. This provided CBRs with time to reflect and gain an understanding of the spiritual practices in their particular community and/or region.

Spirituality

A serious effort was made to make this study as culture-based as possible, reflecting the reality of the history and daily life of First Nations communities. Spirituality is not always an easy topic to deal with. It reflects a personal relationship with the Creator and an understanding where you, as an individual, fit into all of Creation. A person's sense of their own spirituality is also related to the place of the Church in their lives. As indicated in the previous section these two aspects can and do overlap for many young people in the study. In fact this sense of spiritual identity and connection for youth of this age was difficult to articulate.

As indicated in the section on research methodology near the beginning of this report, an aboriginal approach to understanding human nature and behavior, necessarily involves the four aspects of the human being: spiritual, emotional, mental, and physical. Examining spirituality presents more of a challenge at times than the other three aspects, particularly with 10 to 14 year old youth.

Young people were asked "Do you consider yourself a spiritual person?". Overall 59% said yes, that they do consider themselves a spiritual person. A large number of the young people indicated that they were "not clear" what *spiritual* meant. The study was attempting to explore the young person's own self-image in this area, and therefore it was important that they answer according to what *spiritual* meant to them. Some of the CBRs when asked about it's meaning by youth, responded by saying "it is whatever it means to you".

Respect for differences in spiritual and religious practices was strongly emphasized during the training session. No one way was deemed right or wrong. During the training sessions there was a fairly wide spectrum of practices in regards to spirituality and religion from very traditional to non traditional practices. For example in one training session which included local Elders the training sessions opened and closed on a daily basis with prayer to the Creator and smudging using the sacred medicines. In another training session which also included local Elders the training sessions were opened and closed on a daily basis with prayer. In other training sessions the medicines were made available to those participants who chose to smudge. Clearly the variety of practices across the First Nations necessitated a high degree of flexibility, openness and respect amongst those working with the CBRs and the CBRs working in their respective communities.

Of importance was the way in which WUNSKA research team members role-modeled flexibility, openness and respect for these differences. Clearly, the CBRs in the training sessions felt comfortable with the process based on the high rate of participation during the training sessions themselves and the participation in the research process itself.

Church attendance

No less than 61% of the youth interviewed said they attend church (range across regions: 55% to 80%). The same proportion of youth say they participate in traditional spiritual ceremonies (see below).

A protective association was identified between going to church and smoking behaviour: a youth who attends church is 90% more resilient to smoking than one who does not (OR1.9, 95%CI 1.6-2.2)

This is a very significant finding, in light of the fact that spirituality was a "new" element in research. It had been identified by the WUNSKA group as a necessary component of any research initiative among First Nations, and broke the ground for important cultural considerations in research among First Nations.

The previously identified element of an enhanced relationship between Elders and youth, and it's potential to affect smoking behaviour, and this element of spirituality, gives direction into the inclusion of concrete spiritual elments to community programming.

In the bigger scope of nurturing Traditional First Nations knowledge and cultures these type of spiritual activities and initiatives carry a greater significance for all First Nations. By undertaking "non-smoking related" activities with a spiritual nature, impacts on smoking and strengthening culture can be achieved.

Feel spiritual	66	66	53	66	57	55	60	59
Go to church	66	80	55	63	56	75	58	61
Attend traditional ceremonies	61	73	71	43	69	48	62	61
Know about traditional ceremonies	44	59	20	34	60	24	45	39.5
Use tobacco in traditional way	45	50	31	43	55	31	44	42

.(From table 14).

This excerpt from a larger table points to the importance of elements of spirituality on the protective impacts of such activities.

VII. FEEDBACK, INTERPRETATION & ACTION PLANNING

Objectives
Two of the stated objectives of the Inquiry were:

1) community empowerment through the capacity building for gathering of information useful to individual Bands/communities and

2) by returning to the communities the information gathered, permitting its interpretation by communities in ways relevant to their own needs.

In this part of the single cycle process, CBRs were not expected to become expert researchers, but to transmit the data gathered and serve as resource people in discussions the community should take. The communities themselves decided how they wish to develop community action plans based on the results. The feedback process by the CBRs involved:

- *1) reporting back to community leaders, using the Community Story;*
- *2) presenting the results to the community as a whole; and*
- *3) planning for action.*

Holistic Community Story on Tobacco use
During the analysis training, CBRs prepared a community report for use in this feedback stage. This report;

- *a) restated the objectives of the project and the research process used,*
- *b) reported key quantitative results and*
- *c) presented the overall findings.*

This was done in the form of a "Community Story" poster that combined quantitative with the qualitative data through the interlinking circles of information from the four instruments. The poster portrayed the central messages emerging from this analysis.

While developing the "Community Story", CBRs generated ideas for messages for communication strategies in each community. A national interpretation and consolidation seminar was originally intended to bring together CBRs from all regions for one week, to consolidate regional findings into a national picture and to develop national communication strategies and action plans. Due to resource constraints, this had to be cancelled.

Community Leaders

As the first step on their return to the communities, the CBR's were to convene a meeting of the people who selected them to participate in the survey, or a group considered appropriate for this stage of reporting the results. The CBR's were trained to present findings to this group, thereby working with them to interpret data and to decide how to communicate the results to the community at large. This group was to assists the CBRs in preparing a series of feedback circles with key informants, Elders, youth and other members of the community. Suggestions generated by brainstorming among CBR's at the regional training are listed in the accompanying box.

Who

The people and organizations CBR's felt were most important for :
a) receiving the survey findings
b) interpretation of results
c) assisting in broader communication and
d) developing possible action planning

Community organizations
Chief and Council
Band Officers
Elders Committee
NAADAP
School principal and board
School liaison committee
Student council
Parents and Teachers committee
Health Board
Social Services Office
Child and Family services
Community Development Office
Women's committee
Churches
RCMP

Community Leaders
Elders
Social Workers
Community Health Representative
Public Health Nurse
Guidance counsellor
Drug and Alcohol Counsellors
Family Violence Worker
Clinical Therapist
Family \Therapist
Recreation Coordinator/Director

Community at Large

CBR's with the assistance of the leadership group, organized community meetings and feedback Circles. Most CBR's planned to publish the results in community newsletters, to make presentations at meetings of various community organizations and investigate the possibility of special events and workshops on the survey results and discussion of possible community actions. Once again each community has a different approach based on the unique attributes of the community.

Box 5

How

The list of ideas and methods for:
a) presenting the survey findings to the community as a whole
b) involving the community in interpretation of the results and
c) educating and raising awareness in the community on the issues addressed in the survey.

Media
Radio
community television
newspapers
articles in existing newspapers
special issue newsletter
posters
fliers
letter-writing
\Mocassin telegraph
church announcements

Events
Public meetings
presentations to community organizations
school assembly
classroom talks
Circles(Elders, youth, leaders, parents)
pot-luck suppers, luncheons
youth dances
raffel

Communication strategies

At the data analysis training, CBR's developed regional ideas for addressing the "who", "how" and "what" of using the survey results. Communication Strategies deal with "Who" should be actors against smoking and "How" they should act. "Action Planning" deals with the "What" they decided ought to be done.

The CBR's first "brainstormed" as a group. They then worked as community teams to develop feedback plans to fit the specific circumstances and addressed the specific problems of their community. The regional composite lists were given to all CBR's to use for stimulating ideas when they return to their communities.

The text boxes reflect the most widely agreed upon ideas generated by the CBR's in all regions. Some of the terms for various offices and organizations differ between regions and communities. The list below uses the most common titles mentioned in the regional training.

Action planning

If the community decides it wants to develop an action plan based on the results of the survey, the CBR's can assist in;
a) identifying and forming a Planning Group
b) developing a Community Action Plan and
c) planning for involvement of community members in the action plan

A first step in this process is to determine whether a new planning group should be formed or whether it would be more appropriate for an existing group or committee to lead the planning effort. Once this is determined, the group examines whether it is best to start new programs or integrate information learned and the ideas for action into existing programs. Some CBR's beleived this might be a difficult political process. CBR's are not expected to take responsibility for this process, but rather serve as resource people for the process.

A starting point in the action planning process is to consider what has already been done in each community and how effective those programs have been. Key Informants were asked about the types and effectiveness of smoking education programs. Table 20 shows the frequency of various types of programs in the community and in schools on-reserve in the past year.

Table 20
Smoking Education Programs initiated in the past year(% of communities with programs)

	Community Programs		School Programs
None	36%		41%
Workshop/Seminar	41%	31%	
Media	39%		15%
Smoke-free day/week	14%		5%
Smoke-free Facilities	7%		10%
Video	6%		5%

When the same key informants were asked whether they thought these programs had worked, only 11% said "yes".

The suggestions below for possible Action Plans come from key informants, Elders, youth Talking Circles and brainstorming sessions with CBR's at the regional data analysis training.

The most common suggestion and one which fits with the conclusions in the "Finding" section, is the need to develop programs to help youth cope with peer pressure. This suggestion came from all segments of the survey. All segments also suggested increased sports and recreational activities and facilities for youth as alternatives to negative behaviour.

A feeling often expressed by key informants and Elders was "...the community has to work together as a whole." There were comments that people in the communities had "...to do some healing" and "get beyond so much conflict" before they would be able to help their youth.

Many key informant and Elders also suggested there needed to be more opportunities for youth, primarily in terms of employment and education.

A theme from many youth Talking Circles was that there needed to be more effort from the community for activities that "help children live a healthy lifestyle".

Box 6

What
Specific programs

The most commonly expressed ideas for programs to deal with youth abuse of tobacco are listed below. Key informants and youth suggested it would be most effective if activities take place within the schools.

Activities
Peer education workshops(self-esteem/self-confidence, overcoming negative peer pressure);
Band bylaws on youth and adult smoking;
Enforcement of regulations on cigarette sellers;
Health/Smoking awareness Week;
Youth smoker support groups;
more sports and recreational activities;
workshops and Circles teaching traditional use of tobacco and traditional way of life;
Elders speaking in schools about tobacco;
Abuse awareness workshops on smoking, drugs and alcohol;
Workshops on quitting/not starting;
Resource library on health and smoking;
Circles with Elders, youth, leaders, parents;
Smoke-free bingo nights;
Poster design/jingle contest/campaign for kids;
Books of paintings/poems ("Voices of Youth")
Parent-student discussions at school;
Sharing information with native centres;

Materials
Information packets, exhibits, pamphlets, educational displays, videos.

VIII. LESSONS FROM THE PROJECT

Smoking as a subject

Aboriginal community leaders, youth, and the Community-based Researchers(CBRs) all perceive smoking as a low priority in their lives. This was an obstacle at the beginning of the project; it became less so as communities saw what the process meant. They began to see the possibility of using this project to raise awareness of a health issue and to build the community's capacity to do research on other, more urgent matters.

Related to this concern was an apprehension of the part of CBRs and some youth that this was an "anti-smoking" campaign. They felt, if this were the case many youth would not participate and those who did might not be honest in their responses. This issue was addressed in the data collection training, convincing CBRs that the inquiry was intended only to assess the extent of and the reasons for tobacco abuse and it was not an effort to stop youth from smoking. In addition, any efforts to stop youth from smoking would have to be initiated by the communities themselves, using the results of this research to define the problem and identify solutions relevant to their community.

Confidentiality

The importance of confidentiality was stressed throughout the training. This was central to the principle of respecting the knowledge and privacy of participants. Most CBRs made sincere and largely successful efforts to maintain confidentiality and to find ways to assure youth their opinions and answers would remain anonymous. But, even with their assurances and strategies like interviewing youth in the school rather than at home, some CBRs found certain youth who did not want to participate because they were worried their parents might hear about their answers.

Table 21
Refusal to answer in a selection of questions

	Male	female
Favourite pastimes	0.5%	0.2%
Find it hard to say no	0.6%	0.4%
Do you drink alcohol	0.7%	0.6%
Do you smoke...	0.9%	0.8%

Table 22
"Don't Know" in answer to a selection of individual questions

	Male	Female
Favourite pastime	6%	3%
Find it hard to say no	0.8%	1%
Do you drink alcohol	0.2%	0.3%
Do you smoke...	0.6%	0.7%
Consider yourself spiritual	12%	11%

This is especially difficult in the smaller communities, where youth and their parents knew the CBRs. It is almost certain that these concerns led to an under-reporting of actual smoking frequency. Concerns about parents hearing youth responses also led CBRs to conduct many interviews in the schools instead of the home. Certain questions had a lower response rate than others(Table 21).

"Don't Know

In some of the open questions in the youth questionnaire, there was a high percentage of "do not know" responses(Table 22). This pattern was discussed during the analysis training. According to the CBRs, many youth found it uncomfortable to speak up, were not certain of the "right" response or did not want to offend the interviewer.

IX. Conclusions

The success of this project lies in having put the voices of Native youth at the center of discussions on problems directly affecting them. For too long, Native people have not been included in research on their own problems. The direct involvement of the communities in selecting CBRs and in facilitating the research made the results more reflective of the reality of these communities and helps ensure the proposed solutions are more relevant to their particular circumstances.

In taking seriously the charge to "carry the voice of your community", the CBRs and the youth who participated contributed not only to their own empowerment through skill development, but have also enhanced the ability of their communities to take charge of their own research and problem-solving.

One of the most gratifying aspects of this project was the transformation in the mind set of CBRs as they came to the first training not sure what they were there for, feeling insecure and skeptical of the whole process. Most of them returned from the data gathering taking themselves seriously as researchers and as "carriers of the voice of the community".These skills and self-confidence will be valuable assets in tackling the problems facing Native communities.

Peer pressure comes through in the analysis of the data as a prime issue to be dealt with in curbing tobacco abuse among youth. This is fitting; peer identity and pressure is almost the defining dynamic of youth in every culture. It can be supported and nourished in positive ways, including support to resist and to quit smoking. The youth in this inquiry gave some pointers about how this can be addressed.

An important aspect of Native youth culture is it's response to colonialism, racism, poverty and cultural disruption. This compounds the sense of despair, loss of self-esteem and damaged family cohesiveness experienced by youth, indigenous or otherwise, in the current economic climate. As one CBR put it, during the analysis session; "Kids smoke because life sucks".

Yet the indigenous youth in this survey showed themselves as active and potentially effective actors against tobacco abuse. There is a generalized awareness and fascination with the health consequences of tobacco, most youth who decline to smoke do so for concern over their health. No less than four out of every five youth smokers *want* to quit. There is some recognition of what it takes to quit, especially in the case of chewing, there a strong sense of aesthetics with many regarding it "uncool" or "gross". These are important ingredients in a community-based strategy.

The confidence and skills gained by participants in the course of this research survey will be

useful in confronting the challenges posed by tobacco abuse. In gaining an understanding of principles of research based on First Nations knowledge, values and skills, CBRs and their communities will be better prepared to deal with the immediate health issues of tobacco abuse.

Abuse of tobacco has an immediate impact on increased health costs to communities families, and individuals, as well as in shortening life expectancy. But it also affect communities and their culture in more profound ways; by lessening the vitality of future generations of First Nations people thus communities are deprived of human assets they need to overcome the legacies of social and economic oppression.

For First Nations people tobacco has traditionally been seen as a gift from the Creator to be used in ways that honour the gift. Abuse of tobacco may best be confronted by revitalizing this belief in Native youth and in so doing, recovering for the community and culture the strength of it's youth.

The original idea of having two CBRs from each participating community and having them work only in their own community was one way to make the process more community-based. But this approach also posed problems for quality control and depth of

Capacity Building as an Outcome of the Project:

One of unique and primary objectives of this particular research was that of capacity building. It is without a doubt that many First Nations experiences with research has been less than positive. Research is often done by an expert or a team of experts who are often from outside the community. What typically evolves is a process which is dominated and controlled by the researcher themselves thus marginalizing the community from the process and ultimately from the information generated.

More recently, First Nations communities themselves have sought to control research which is done in communities through various agreements and band council resolutions which put the control in the hands of the community. Several approaches have developed out of principles around empowerment which are aimed at community taking control of research process, developing and planning for their own research needs and carrying out the research to answer particular questions about their respective communities. Certainly, the whole aspect of community based models of research is not new. They come packaged in a variety of form. For example, action based research, participatory research, community based participatory research etc. All of these models have similarities and differences and vary across the spectrum in terms of community control. All these models encourage community participation.

The model which this research was based upon is unique in that it includes those elements of community based research and meaningful participation as well as capacity building as a primary

objective. Many research processes which are grounded in the principles of community empowerment bring the participants through the research process and while participants experience the research process for themselves learning occurs. Capacity Building is also built on the principle of empowerment However, with this particular project, capacity building has been formalized through the addition of two intensive training sessions. Through these intensive training sessions and then the application of the learning through actual data collection, data analysis and planning for community feedback CBRs were provided with an opportunity to expand on existing knowledge and skills in the area of research.

Recognition of the experiences of participants is not a new concept. Nor is the whole notion of building education programs based on prior learning and knowledge and experiences. However, the combination capacity building as an elemen of community development, experiential learning techniques, following principles around empowerment and advocacy it seemed only natural to consider a research process which was truly different. Capacity building provided this difference. The objective of capacity building is to generate the expertise and skill within the community thereby increasing each participating communities ability to carry out research, interpret, disseminate and act upon it in the way in which is appropriate to the community. Through this process the community develops its own capacity to do research in other areas, topics or issues of relevance and importance to the community through the CBRs who reside in the community. This becomes an investment in the community. The hope is that the process does not end at the CBR but rather continues. In one example, a group of youth have undertaken another research study since being a part of this particular study.

In order to fully appreciate how capacity building occurred it is important to consider the principles surrounding the development of the research training itself. Several meetings were held with the WUNSKA research team members to discuss principles around training and the training format itself. Traditional teachings and the circle process guided these discussions and the subsequent development of training materials. The actual training itself was based on these same principles which included;

- respect for CBRs knowledge and experiences culture, tradition, language and research;
- respect for differences in practice of culture and tradition and diversity of languages; and
- inclusion of elders as directed by the community themselves.

The development of training materials went through several drafts before they were finalized in order to ensure the principles guiding the research were also a part of the training with particular emphasis capacity building. During the first training sessions CBRs focussed on the elements of data collection including an overview of the research process; key concepts related to research; the research protocols and ethics; fundamentals of questionnaire design; specific skills at administering questionnaires; interviewing techniques; facilitating Circles or discussion groups; the importance of and identifying key informants; basic recording skills; and the various roles of WUNSKA researchers, CIET and CBRs. Starting with the experiences and knowledge of participants and building on that knowledge was the first step in the training. These experiences

and knowledge were gathered during the first day of training guided by the Circle process. Each participant vocalized their experiences with working in First Nations communities, experiences which relate to research and/or their work.

From this point WUNSKA trainers were able to adapt the training to meet the needs of the CBRs in that region. Another important aspect of the training was application of new knowledge through the use of simulated role plays. This provided CBRs first hand opportunities to practice interviewing and facilitating circles. In some regions, CBRs also had the opportunity to conduct a field test within a nearby First Nation. This provided those CBRs with field experience in administering the research instruments with a group of First Nations youth aged 10-14 years.

Considerable time was also spent going through the four research instruments with the CBRs. This provided ample opportunity for CBRs to gain a full understanding of the purpose of the questions and prepare themselves for possible explanation within their respective communities if necessary. It also provided knowledge around questionnaire design. Discussions were also held on how to deal with situations that might arise in the course of the research.

In the second round of training the focus was on data analysis and preparing for community feedback. CBRs had the opportunity to practice data entry, complete data analysis of both quantitative and qualitative data including interpretation and development of presentation and feedback mechanisms. The data analysis training included an overview of content and thematic analysis of data collected from circle. As well the CBRs began meso-analysis which linked the data collected from the four instruments together. The same process was used as in week one with CBRs. The opening circle was critical to planning and implementation of this training session. CBRs were able to vocalize their successes and their any obstacles they faced in the data collection phase.

The biggest question that comes out of this process is whether or not capacity has been built. Certainly this could be another area to study. One could go back at a later date to the original CBRs and ask the questions on whether or not they found the training and the process useful and whether or not they have been able to utilize the skills and knowledge gained. Certainly in terms of the information generated in the second training session in the opening circle all those CBRs who participated in the data collection training and data collection had acquired considerable knowledge of this aspect of the research process. Some of the comments during these opening circles to the second session of training were; I have been able to see how this process could be used in other areas. I was able to use the process of the Circle to help deal with issues back home with the Band and the community.

After the second round of training in the area of data analysis and community feedback mechanisms one group of CBRs have taken on another research process in their communities utilizing a similar process as was used for the tobacco study. On an individual basis some of the CBRs have vocalized that they understand the importance of research and can link it to other areas

for example around needs assessments and community development initiatives. A CBR mentioned approximately 8 months after the initial training that she did in fact know what research was and felt more comfortable and at ease with it. Its not as hard as I thought it was. We can do it for ourselves. Powerful words for a CBR who at the beginning of the training vocalized that she had no experience with research and was actually leery and fearful of taking it on.

Capacity building as with many community development initiatives which take on a grass-roots approach are often inundated with the pressures from funders to complete the process and produce results. What is often not recognized is that the process is as important and in some cases more important than the results in any community based work. This is not to say that the product has not been complete. In this study a report has been produced but probably at the expense of fully completing the capacity building aspect of the research. This is due the pressures of time and resources. In order to fully develop skills, knowledge, programs, outside funders have to recognize the vital importance of ensuring the communities benefit form the research its lf. One way of doing this is through including capacity building as a major component of any programs or research studies done in First Nations.

A few CBRs, because of their previous experience, combined with the training received in these few days, are able to do a credible community-level research job on their own. Even for those for whom this was the first exposure, most gained enough to be able to with independent competence after the experience of another cycle or two, or with some additional workshops devoted to building on these skills and experiences.

Box 7
Capacities Built

Objectives	Outcome
1. CBRs were introduced to the fundamentals of survey and questionnaire design	All gained an awareness of the importance of questionnaire design, and the importance of adapting instruments to meet their community needs
2. They gained experiences administering questionnaires	Developed capabilities to administer a variety of instruments
3. They were trained in facilitating a Talking Circle	Transferable to other group type settings, but gained insight into the holistic dimension and cultural relevance
4. CBRs were trained in basic recording, applicable to Circles, nominal groups or focus groups	Further consolidation of these skills is required
5. They were exposed to the importance of key informants, to identify and to interview them	CBRs achieved this
6. They were introduced to data entry and cleaning processes	Achieved understanding of this but most should not be expected to have knowledge to conduct this step independently
7. They were introduced to an approach to linking quantitative and qualitative data	More experience is needed to consolidate this skill
8. An introduction to report writing	With the project cut short due to lack of funds, CBRs obtained minimal experience in report writing
9. CBRs practiced identifying targets, messages and media for development of a communication plan	Most became moderately at ease and could probably make a good start on their own
10. Introduced to techniques of making a presentation to a group, for feedback of data to communities.	Introduction and practice

As a result of this experience, it might be appropriate to explore an approach in which a smaller number of CBRs are chosen from among participating communities and deployed as regional(or possibly sub-regional) teams. Another alternative is to explore a second cycle with some CBRs which would concretize the capacity building.

In this way they would get more depth of experience, gaining skills as they work in communities.

It would also assure quality control through skill monitoring by team supervisors. With smaller number of CBRs and deployment of teams the costs of the survey could be substantially reduced.

Annex 1

Potential resilience factors analysed

Factors taken from the youth questionnaire

1 Sex (#5)
2 Age (#6)
3 Speaking a Native language (#7)
4 Attending school (#8)
5 Last grade completed (#10)
6 Sort of favorite pastime (#11)
7 Being in contact with anti-smoking campaigns/pamphlets (#12)
8 Remembering anti-smoking messages (#13)
9 Reasons for remembering (#14)
10 Perception of smoking as danger to health (#15)
11 Ways smoking harms young people (#16)
12 Parents telling their child that smoking is bad (#17)
13 Parents approval of young people smoking (#18)
14 Favourite teacher smoking (#19)
15 Drinking (#20)
16 Feeling left out when friends smoke (#23)
17 Finding it hard to say no if offered a cigarette (#24)
18 Having problems (#28)
19 Sorts of problems *#29)
20 Reason for smoking (#30)
21 Encouraging younger people to smoke (#31)
22 What happens when one quits smoking
23 Information about the effects of tobacco (#52)
24 Going to Church (#53)
25 Participating in traditional ceremonies (#54)

1 Know of traditional use of tobacco in ceremonies (#55)
2 Considering himself/herself spiritual (#570

Factors taken from the community profile and key informants guide

1 Number of CHRs
2 Number of NAADAP workers
3 Distance from a non-Native community
4 Participation of non-Natives in First Nations community facilities/activities (#5)
5 Relationships between non-Native and Native communities (#6)
6 Racism/discrimination (#8a)
7 Racism affecting smoking behaviour (#8c)
8 Adults scolding children who smoke in public (#9)
9 People smoking in Band officers and community facilities (#10)
10 Families openly forbidding smoking in theirhomes by placing "No smoking signs" (#11)
11 People smoking in the workplace (#12)
12 Teachers smoking (#13)
13 Existence of a smoking education program on the Reserve (#14)
14 Negative activities in which youth participate (#18)

15 Opportunities for young people on the Reserve (#20)

Annex 2

INDIVIDUAL YOUTH QUESTIONNAIRE

Objective: to determine how many kids use tobacco, why they do and ways to help them not use it inappropriately. assure parents and kids that answers are anonymous.

1. What Band/ First Nation do you belong to?

2. How many people live in this household?

3. Starting with the youngest, what is the age and sex of each?
   <M6 F13, M34, etc.>

4. Which of these use tobacco <smoke, chew/snuff>?
   <circle the numbers in 3. above>

<Interview each young person aged 10 to 14 in turn>

5. <Note male/female.>

6. How old are you?

7. Do you speak a First Nations language?

8. Do you attend school?

9. <If no>, Why not?

10. What was the last grade you completed?

11. What is your favourite past time?

12. Have you seen anything explaining the risks of smoking tobacco?

<If "No", go to 15>

13. Do you remember what they said?

14. Why?

15. Do you think smoking Tobacco harms young people?

16. **If "yes", how?**

17. Have your parents ever told you that smoking is bad for your health?

18. Do your parents approve of young people smoking tobacco?

19. Does your favourite teacher smoke cigarettes?

20. Do few/some or many of your friends smoke tobacco regularly?

21. Do few/some or many of your friends chew tobacco regularly?

22. Do you drink alcohol?

23. Do you feel left out when your friends smoke cigarettes?

24. Do you find it hard to say "no" when you are offered a cigarette to smoke?

25. Do you prefer to go out with people who smoke or with those who don't smoke?

26. Do you consider yourself to be physically very healthy, healthy, or not so healthy?

27. Why?

28. Do you consider that you have few, some, or a lot of problems in your life?

<If no problems go to 30>

29. What sorts of problems do you have?

30. Why do you think people your age start smoking cigarettes?

31. Would you encourage younger people to smoke cigarettes?

32. What happens when someone quits smoking cigarettes?

33. What kinds of tobacco products did you use in the last week? <cigarettes, pipe tobacco, chewing tobacco, snuff >

<If "none", go to 35>

34. How much money did you spend on tobacco in the last week?

35. Do you smoke cigarettes every day, occasionally, or not at all?

<If "not at all" >

36. Did you ever try smoking cigarettes?

37. Are you thinking of starting to smoke cigarettes?
38. What made you choose not to smoke?

    <Go to 47>

39. How long has it been since you had your last cigarette?
40. How old were you when you had your first cigarette?
41. During the last week, how many cigarettes did you smoke?

42. How do you usually get your cigarettes? <Probe>

43. What makes you smoke more? <Probe>

44. Would you like to quit smoking ?

    <If "no", go to 46.>

45. What would help you quit?
46. Do your parents know that you smoke?

47. Do you chew tobacco?

    <If "no">

48. What made you choose not to chew tobacco?

    <Go to 52>

49. How old were you when you first chewed tobacco?

50. Would you like to quit chewing tobacco?

    <If "no", go to 52>

51. What would help you quit chewing tobacco?

52. What more would you like to know about the effects of using tobacco?
53. Do you go to church?

54. Do you participate in traditional spiritual ceremonies?

55. Do you know about the traditional use of tobacco in ceremonies?

<In "no", go to 57>

56. Do you use tobacco in a traditional way?

57. Do you consider yourself a spiritual person?

Annex 3

The Circle Process Guide

Introductory remarks:

"We would like to thank you for coming here today. We will be going around this group 6 times today and each person will have an opportunity to say what they would like to say."

"In this group we would like to talk about tobacco and what it means to you, rather than what others might think of it."

Round 1:

Why do you think some kids smoke? <or chew or use snuff>

Round 2:

Why do you think that some kids don't smoke? <or chew, or snuff>

Round 3:

What feelings do people have when they smoke?"

Round 4:

What do you think tobacco does to the body?

Round 5:

What more would you like to know about tobacco?

Round 6:

This teaching was graciously given to us by Elder Danny Musqua

"Tobacco was seen by our people as a gift form the Creator which would enable us to communicate with him. We were given tobacco because it affected the way we were able to think. It would give us an immediate feeling of heightened awareness, because the tobacco we inhaled was that strong. We were given knowledge of how to fashion a pipe with which we could take very small puffs of tobacco smoke from. We would only take small puffs, and then we would immediately blow out the smoke because smoke was not meant to be taken into our body and held there. The smoke needed to leave us in order to rise to the Creator with our prayers and thoughts. If we held it in our body it would be an unnatural presence there.

Immediately after taking the puff of smoke our mind would race, and our whole body would be affected by this smoke, since tobacco is a very powerful medicine. It has a specific purpose which must not be abused.

What does this teaching say to you?"

Round 7:

If kids want to stop smoking, what can be done to help them?

Round 8:

How do we help kids who don't want to start smoking?

Annex 3b

Talking Circles: Quantifiable results

The responses from youth in the Talking Circles were totaled for all circles in each community. They were coded and input according to whether 1) all youth mentioned a specific subject, 2) more than half mentioned it, 3) half mentioned it, or 4) less than half mentioned it.

Once these categories were combined for all circles in all communities, they were weighted according to: all =4 more than half = 3 half = 2 less than half = 1

Round one: Why do you think some kids smoke?

	unweighted		weighted
Peer Influence	71	Peer Influence	157
Parents Influence	33	Parents Influence	36
Adult Influence	16	Adult Influence	24
Addiction	25	Personal Choice	26
Personal Choice	24	Addiction	25
Defiance	17	Act Good	25
Relax	13	Defiance	19
Act Good	13	Relax	13
Boredom	11	Boredom	12
Depression	9	Depression	9
Neglected	5	Neglected	6
Don't Know	32	Don't Know	36

Round two: Why do you think some kids don't smoke?

	unweighted	weighted
Health Risks	91	164
Don't Want to	51	61
Parents Influence	24	30
Peer Influence	18	19
Appearance	14	14
Taste	11	13
Money	8	8
Adult Influence	2	2
Don't Know	20	20

Round three: What feelings do people have when they smoke?

	unweighted	weighted
Negative Feelings	120	171
Not At Ease	55	79
Unhealthy	19	36
Depression	13	19
Afraid	14	14
Anger	10	12
Addiction	6	6
Tired	5	5
Positive Feelings:	108	142
Relaxing	37	51
Cool	35	49
Happy	16	18
Mature	12	14
Energy	8	10
Don't Know	40	60

Note: "Don't Know" is significant as the second highest (14.9% of unweighted responses).

Round four: What do you think tobacco does to your body?

	unweighted		weighted	
Health Problems/Disease		96		216
Appearance		40		50
Mental Problems		19		24
Energy		14		19
Bad Breath		13		15
Addictive		12		13
No Babies	6		6	
Relaxing	4		5	
Don't Know		26		27

Note: Almost totally negative - except 'relaxing' and possibly some of 'energy'. Most of 'energy' probably means 'gives energy' but some may mean 'takes away energy'.

Round five: What more would you like to know about tobacco?

	unweighted		weighted	
Information on Tobacco		64		101
Health Issues	51		79	
Nothing		29		47
Anything		24		34
Reason for Starting		12		15
Traditional Use		8		13
Don't Know		26		30

Round six: What did you think of this story?

	unweighted		weighted	
Don't Know	32		58	
Good//Cool	32		55	
Importance of Tradition	28		50	
Educational	22		28	
Tobacco Abuse is Disrespectful		16		24
Interesting	14		18	
Means Tobacco Kills	7		8	
Did Not Like It	5		6	
Shocking	1		4	

Note: "Don't Know" is significant as the highest weighted response (20.4% of unweighted responses).

Round seven: If kids want to stop smoking what can be done to help them?

	unweighted	weighted
Education/counselling	91	149
Parents should forbid them	31	38
Non-smoking friends	27	33
Sports/activities	22	33
Ban cigarettes	28	32
Stop smoking in front of them	16	18
Patch/hypnosis/alternatives	15	16
Nothing	14	15
Chewing gum	9	10
Take away allowance	2	2
Don't know	33	40

Round eight: How do we help kids who don't want to start smoking?

	unweighted	weighted
Prevention	66	132
Personal choice	36	43

Adult influence	28	36
Peer influence	26	33
Parents forbid/punish	15	21
Parents influence	15	18
Activities	12	18
Media	13	14
Non-smoking places	7	8
Sanctions on seller	1	3
Negative reinforcement	1	1
Don't know	35	45

"Adult influence", "Parents forbid/punish", "Parents Influence" = 75 (second)
"Don't know" is significant as second highest weighted response (13.7% of unweighted).

Annex 4

KEY INFORMANT QUESTIONNAIRE

Objectives for key Informants Interviews

- Gather information from knowledgable individuals in community
- Learn details that are not appropriate for the individual youth questionnaire
- Access non-quantifiable information
- Link information from quantitative and qualitative methods
- Ensure cultural relevance and appropriateness
- Ensure accountability to community
- Look for strengths in the community to build on in future programs

Relationship with the non-native comunity:

1. How close is the nearest non-native community?
2. What businss contacts are there with that non-native community?
3. What service agreements are there with that non-native community?
4. What recreation facilities do band members use in the non-native community?
5. Do non-natives use or participate in First Nations community facilities and activities?
6. How well do the communities get along?
7. What is the nature of socialization between the two communities?
   <Prompt: for example do kids play together? Do young people date/do adults socialize? Are there close friendships between members of the two communities?
8. Does your community experience discrimination/racism? If so, how? Does this affect youth smoking behaviour?

First Nation Community Attitudes towards Smoking:

9. Are children who smoke in public scolded by adults?
10. Do people smoke in band offices and community facilities or are the buildings smoke-free areas?
11. Do any families openly forbid smoking in their homes by placing "No Smoking" signs?
12. Do people smoke in the workplace?
13. Do teachers smoke?

Community Programmes:

14. What smoking education programmes have been initiated in the past year on the reserve? In the community? In the Schools?

<If none, go to 16>

15. Have any of the programmes worked? How?

16. What community recreational activities (inside and outside of the community) are available to youth? <Prompt: for example, baseball, basketball, lacrosse, hockey, football, pool, soccer, watersports, dances, theatre groups, pow-wows?

Do youth participate?

17. Do young people participate in spontaneous informal pick-up games and activities? <Prompt: hide and seek, kick the can, scrub baseball, red rover, etc.?>

18. Are there any negative activities in which youth participate? <Prompt: gang behaviour, loitering, gas sniffing, etc>

19. What is the economic base of the community?

20. What opportunities are there for youngpeople? <Prompt: for example, summer employment, long term jobs, education?

21. Any other comments?

22. Any other comments regarding youth smoking in this community?

Elders' Question Guide:

Ask the Elder

1. How the presence of tobacco has changed in the community, <For example: its use, the varieties of tobacco?>

2. What is your personal perspective about why young people smoke?

3. What methods could be used to reduce smoking in our youth?

4. What role could Elders play in reducing smoking among youth?

Annex 5

Community Profile

This is meant to provide some background information on the community that will facilitate future contacts between the WUNSKA resource person for the region and the community. It provides also some information about the community that might explain in part the problem of tobacco use. This information is important to the success of the study. Please complete it to the best you can during the training and send the completed copy to the WUNSKA resource person.

Questions

1. Full name of the nation
2. Treaty Area Number
3. Total population living on the community
4. a) What are the names of the schools in the community
   b) Indictae for each if it is or not under the authority of a First Nation Board
   c) Indicate for each what type of school they are
5. Name of the Chief
6. Number of CHR's
7. Number of NNADAP workers
8. What should be done in case there is a need to send you an urgent package? What would be the precise mailing directions?
9. What are the phone numbers where the CHR's can be reached?
10. What is a fax number where we can send you something

Annex 6

List of Participating Communities

List of participating communities

COMMUNITIES	POPULATION	SIZE[1]	ISOLATION[2]
ALBERTA			
Alexander	733	3	4
Beaver Lake	264	2	4
Big Stone	800	3	1
Blood Tribe	6194	4	4
Heart Lake	137	1	4
Mikisew		3	1
Samson Cree Nation	4308	4	4
Siksika	259	4	4
Sucker Creek	409	2	4
Swan River	222	1	4
Woodland	526	2	3
ATLANTIC			
Davis Inlet, Utshimassits	529	2	2
Eskasoni	2356	4	4
Indian Brook	1126	4	4
Lennox Island	280	2	4
Oromocto	162	1	4
Sheshatshit	1080	3	2
Tobique	1109	3	4
BRITISH COLUMBIA AND YUKON			
Nuxalk Nation	803	3	4
Boston Bar	160	1	4
Carcross	167	1	3
Gitanmaax	734	3	4
Gitlakdamix	735	3	4

Gwa-sala-Nakwaxda'xw(Port Hardy)	430	2	4
Heiltsuk	1150	3	4
Hun-Ay-Aht	149	1	3
Lakahahmen	121	1	4
Lake Babine-Woyenne	659	2	4
Moricetowm	693	2	4
Musqueam	502	2	4
North Thompson	270	2	4

[1] 1=very small (1-225 people); 2= small (226-700 people); 3= medium (701-1200); 4= large (1201 and more inhabitants)

[2] 2= remote isolated; 2=isolated; 3=semi-isolated; 4= non-isolated

Quatsino	226	2	4
Shxwowhawel	63	1	4
Spuzzum	84	1	4
Tl'azt'en Nations - Tache	691	2	4
Ulkatcho	610	2	3

MANITOBA

Bloodvein	541	2	2
Fisher River	1384	4	4
Fox Lake	342	2	3
Grand Rapids	443	2	3
Hollow Water	516	2	4
Lake Manitoba	572	2	4
Little Saskatchewan	369	2	4
Norway House	3211	4	2
Opaskwayak	1987	4	4
Popular River	891	3	2
Sagkeeng	3069	4	4
Shamattawa	729	3	2
Sioux Valley	1103	4	4
Split Lake	1407	4	2
War Lake	124	1	3

ONTARIO

Chippewas of Newash	596	2	4
Curve Lake	843	3	4
Ginoogaming	252	2	4
Golden Lake	308	2	4
Michipicoten	34	1	4
Mohawks of the Bay of Quinte	2052	4	4
Naicatchewin	135	1	4
NW Angle A	26	1	2
NW Angle B	72	1	2
Onegaming	261	2	4
Rainy River	273	2	4
Red Rock	189	2	4

Sand Point	19	1	4
White Sand	102	1	3
Wikwemikong (Center)	2306	4	4
Wikwemikong (South Bay and Kaboni)	300	2	4

QUEBEC

Abenakis De Wolinak	112	1	4
Betsiamides	2332	4	3
East Main	468	2	2
Kitigan Zibi-Anishinabeg	1327	4	4
Lac Simon	957	3	4
Listuguj	1321	4	4
Natashquan	719	3	2
Nation Huronne	1043	3	4
Obedjiwan	1382	4	2
Odanak	276	2	4
Uashat Mak Mani Uten	984	3	4
Waswanapi	876	3	2
Weymontachie	1051	3	2
Whapmagoostui	544	2	2

SASKATCHEWAN

Atahkakoop	1411	4	4
Cumberland	374	2	3
Gordon's	1181	3	4
Island Lake	433	2	4
James Smith	1256	4	4
Makwa	659	2	4
Mistawasis	767	2	4
Muskeg	360	2	4
Muskoday	419	2	4
Pelican	741	3	4
Standing Buffalo	405	2	4
Star Blanket	425	2	4
Sturgeon Lake	1165	3	4
Waterhen	625	2	3
White Cap	177	1	4

Annex 7

Informed Consent Form

I _____ being the parent/guardian of _____ give permission for this child to be involved in the "National First Nations Youth Smoking Survey", to be carried out in this community.

I am aware all the information this child will provide is important to the success of the project; the process, the persons and the information will in no way be harmful to this child. All of the information they provide will be totally confidential, if not anonymous and it will be used only by the researchers in this project. If information is provided back to the community it will not be identified as coming from any specific child.

I agree to allow this child to be allowed to attend the session where the information will be gathered in a group setting. I also understand a researcher will be coming to my home to carry out a short interview with a child whose age corresponds to that of the youth being researched in this survey on smoking.

I understand I have the right to see all of the instruments being used in this research and to call the researcher at any time, should I have any questions.

Signed: _____ Date: _____

Annex 8

To Carry The Spirit and Voice

Among our people we have a way to describe the role of a leader or leadership. We say that they are the "Ogimah". In looking at the essence of the word, it means to carry the "spirit and voice". That description describes the role and responsibility of the designated person. Variations may occur with regard to spelling and pronunciation in dialects.

The person who is given this title carries the sacred spirit, trust and intent of their people. It becomes obvious that the individual in the role must be of esteemed superior character. The manner through which this is done is through the process of the Circle and/or meeting.

Upon entering the Circle individuals remove their titles and carry with them only their, "Sense of Being". Any baggage of any nature whether physical, emotional or other is left outside. The understanding is, they bring into the gathering an open mind and their humanness. The intent of the practice is to get rid of anything that may cloud issues, cause disruptions and lead meetings into sidetracks and breakdown. It is made clear that the purpose is to deal only with the issue at hand.

When a Circle is opened the person with an issue or problem may be given the opportunity to begin the discussion. Otherwise a person approached, possibly an Elder may begin the process. Each person present is given the opportunity and time to present their thought and argument. The session may continue for a lengthy time. Discussion may proceed to the right or left and may be aided by the person speaking, holding onto a sacred feather or similar aid. There is an implied understanding that there will be no heckling or disruption of the person that is talking. Debate is

permitted to continue until such time as a sense of "truth" emerges. This process of enabling the "truth" to emerge is described as "Debweh". Discussions may also lead to plans of action.

It is the emergence of the truth, "Debweh" that is assigned to the "Ogimah", to carry. The person designated as "ogimah" puts aside their personal thought, feeling, and choice. The understanding is they are to carry the "Debweh" or truth. This truth represents the "Will" and "Heart" of their people. Personal interest is put aside. "Hence", "Voice", "Heart", "Spirit", "Truth", and "People" are linked.

By Art Petahtegoose

From: George Petahtegoose Sr.

Dodem: Elk